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JULY • 1953

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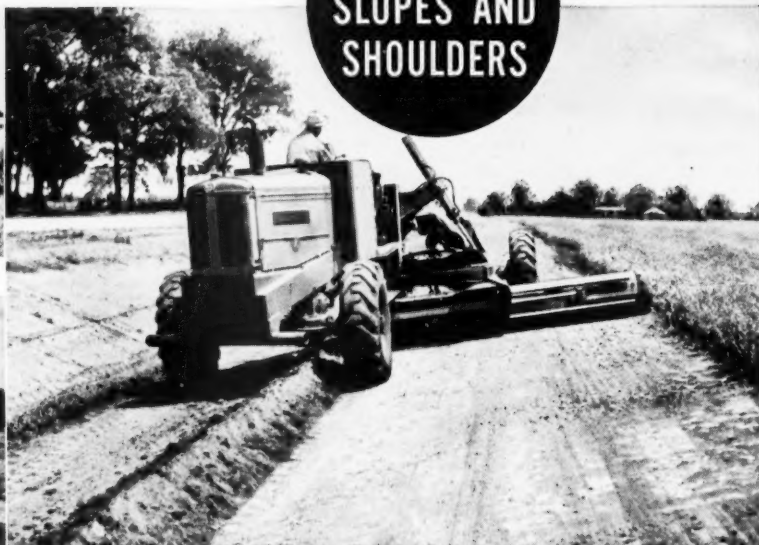
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Precise finishing operations, not possible with ordinary motor graders, are handled easily and economically by Austin-Western Power Graders with their exclusive All-Wheel Steer. Extra wide shoulders and slopes of any kind can be finished accurately without leaving tire marks. This "extreme blade reach" eliminates a great deal of hand labor—makes quick work of former time-consuming jobs.

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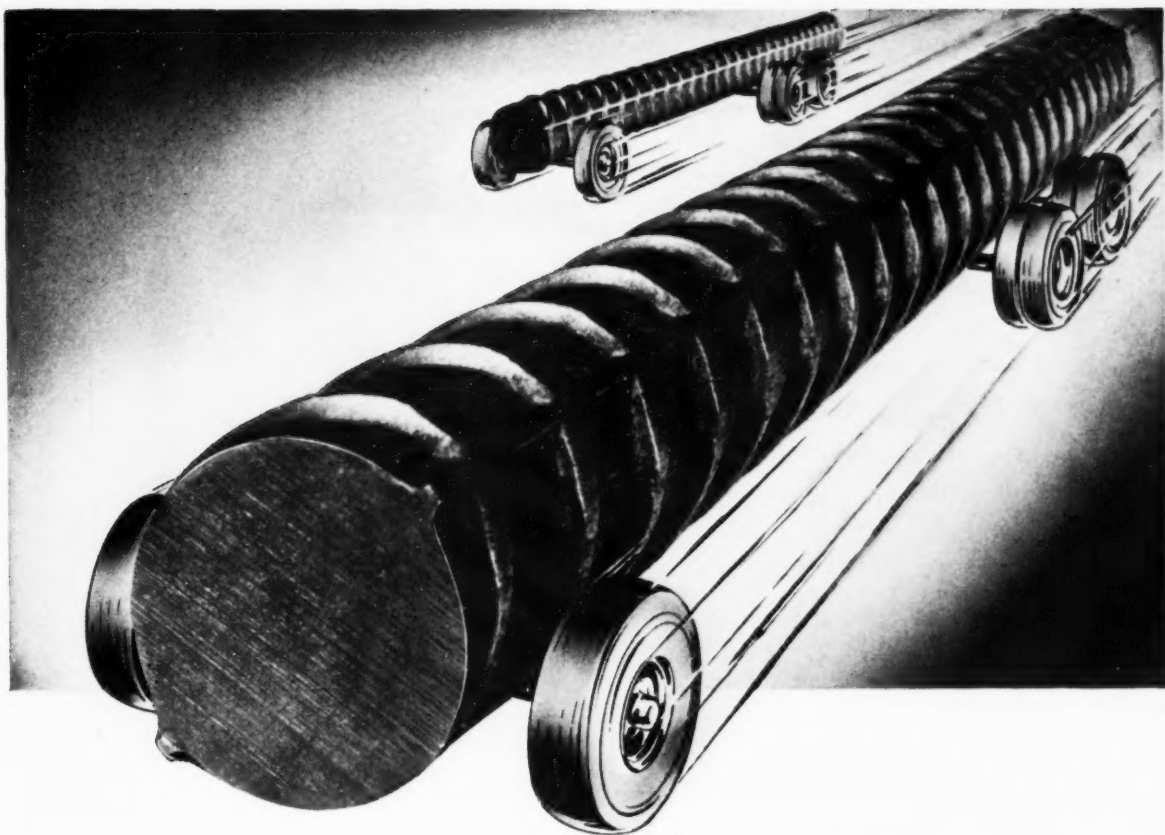


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THE CONSTRUCTOR, JULY 1953



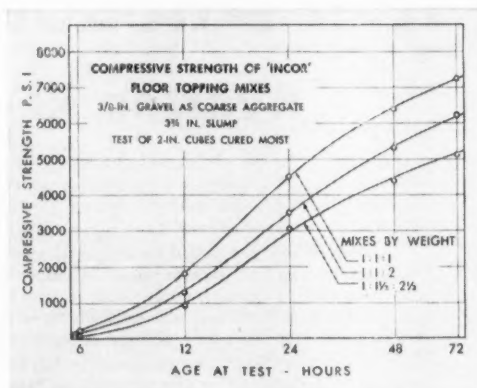
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THE CONSTRUCTOR, JULY 1953

The CONSTRUCTOR

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Paving the new Santa Ana Freeway

JOB-ENGINEERED FINANCE PLANS

The West Coast firm of Webb & White contracted for the paving of a 2½ mile stretch of the new Santa Ana Freeway. Here you see Webb & White equipment working on one lane of this modern, 4-lane highway.

Webb & White recently helped speed their contracting operations with a vital ingredient—a capital loan arranged by C.I.T. Corporation. Like

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When *your* operating capital needs rise sharply or you need equipment financing—call or write any of the offices listed below. C.I.T. Corporation's long experience in your field is at your service whenever financing needs arise.

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A.G.C. Directory, featured in each July issue of *THE CONSTRUCTOR* since 1934, lists a new record total of 6,358 memberships held by general contractors who perform over 80% of all contract construction in this country. Chapters and branches in every state and Alaska total 122. (Story, page 23; directory starts on page 245)

All-time high of \$16 billion in new construction recorded for first six months of 1953, an 8% increase over same period last year. Record levels set in each month this year brighten the prospect for a \$34 billion mark in new construction for 1953. (Page 25)

Unwavering optimism of U. S. business, backed up by plans for biggest capital outlay for new plant and equipment ever spent in one year, again upsets earlier gloomy forecasts by economists who had predicted recession. Latest Commerce-Securities & Exchange Commission survey shows around \$28 billion expenditures planned for 1953, with main areas of expansion relating to civilian production, not the defense program. (Page 25)

Contractor's profits will depend more on rapid turnover of his dollars and keeping enough working capital on hand despite good business outlook in near future, according to C.I.T. Corporation official. (Page 27)

S. 848 reported favorably to the Senate by Senate Judiciary Committee on June 18 over A.G.C. opposition, is now being pushed by subcontractors and international and local unions with which they work, with the strongest kind of political pressure. Bill would require general contractors to name subcontractors and their prices in bids on federal jobs. (Page 42)

Judicial review of disputes arising from government contracts, bill S. 24, passed by Senate June 8, has been referred to House Judiciary Committee, which has before it identical bill, H. R. 1839, and is expected to act this month. (Page 42)

Mandatory use of Form 23, revised government standard construction contract, has been postponed until Dec. 1, following A.G.C. protest to Edmund F. Mansure, G.S.A. administrator.

His invitation to A.G.C. to present views of construction industry accepted. (Page 53)

Long-range highway planning and more federal aid to states advocated in testimony before subcommittee on roads of House Public Works Committee by two A.G.C. representatives, P. M. Thornton, chairman, Highway Contractors' Division, and George C. Koss, co-chairman, A.G.C.-A.A.S.H.O. joint committee. (Page 33)

Arthur K. O'Keefe has been appointed deputy administrator of NPA, succeeding Lyall Tracy who has returned to private industry. The agency will continue operations on a reduced scale until July 31 and plan and staff the proposed new Business Services Administration which will succeed it.

Educational activities of A.G.C. chapters are revealed in a nationwide survey made by national office. Special contracting courses, scholarships being sponsored by increasing number of chapters. (Page 75)

Archibald Cox, Harvard law professor and former chairman of the Wage Stabilization Board, writes this month that Congress should not attempt to enact labor legislation (Taft-Hartley Law) at this session, except minor, noncontroversial amendments. In presenting his views, he suggests that Congress refer current labor problems to a commission of congressional leaders, labor relations experts, prominent industrialists and organized labor leaders. It is unlikely that Congress will take any action on the law until the next session. (Page 174)

John T. Dunlop, chairman of the National Joint Board for Settlement of Jurisdictional Disputes, analyzes 10 types of these disputes and what he considers are their principal causes. (Page 165)

NLRB rules shutdown legal in construction case, apparently reversing previous policy of presuming all lock-outs by employers to be illegal, after strong criticism late last month by two U. S. Courts of Appeals in widely separated areas. (Page 178)

Problems of governmental functions, operations and sources of revenue will be looked into carefully by two commissions which are to be established


soon. One group, the Commission on Governmental Operations, is expected to study present organization and methods of operation by federal agencies with the idea of abolishing needless services. The other group, the Commission on Intergovernmental Relations, is expected to consider the proper role of the federal government in relation to the state governments. The construction industry will have a direct interest in the actions of these commissions. (Page 29)

Grant Bloodgood, chief construction engineer of the Bureau of Reclamation, Denver, writes in this month's issue that the keynote of reclamation is construction by contract. He praises the A.G.C. and his bureau for working to eliminate the differences between contractors and engineers. He also reviews the A.G.C.-Reclamation Bureau cooperative efforts which began in 1945. (Page 50)

Prestressed concrete has "established superiority over reinforced concrete and structural steel for certain types of structures," contractors are told in an article written this month by Curzon Dobell, president of the Preload Company, Inc. He says that the thousands of linear and circular prestressed structures constructed throughout the world in the past 15 years demonstrate the "structural and economic advantages" made possible by this method. (Page 156)

Work stoppages in May brought on by labor-management disputes totaled 3 million man-days compared to 2.5 million in April, the Bureau of Labor Statistics reported last month. Despite increase, the idleness for first five months of 1953 was only half as much as the comparable 1952 period. Two of the largest strikes which began in May involved over 10,000 workers on construction projects.

President Eisenhower is planning an "economic general staff" which would help the government prepare for the dangers of booms and depressions in the way a military general staff prepares for eventualities in a war. Dr. Arthur F. Burns, the President's economic adviser, is expected to become economic chief of staff when the proposal to revive the Council of Economic Advisers clears Congress. He will probably become chairman of the council. (Page 30)



TODAY—A CRANE

TOMORROW—A SHOVEL

*But—
will it be
a ROCK
SHOVEL?*

It's another

NORTHWEST
in **ROCK!**

There are always tougher jobs ahead! Today you start in with crane operation. Tomorrow you may be faced with a shovel problem and conversion of your equipment. What kind of a shovel is *your* crane going to make? Will it be a Rock Shovel?

If you have a Northwest you know what it will be. You've probably proved it to be a *real* Rock Shovel just as so many Northwest owners have. High output in rock is one of the many reasons why one out of every three Northwests sold is a repeat order.

Remember, the boom doesn't make the machine. Real convertibility is a combination of *basic machine* and attachments—a combination of basic materials, design, balance, engineering—all the tangible and intangible qualities that come only with years of testing and experience.

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Better check into Northwest convertibility.

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A Series of Graphs Outlining the Construction Trend

Compiled by The Associated General Contractors of America

TREND OF CONSTRUCTION COSTS

The average of construction costs in the principal construction centers of the United States for June stands at Index Number 411, according to the A.G.C. Index. The cost figure for June 1952 was 382. The 1913 average equals 100.

290. The 1913 average, again, equals 100.

CONTRACT AWARDS IN 37 STATES

The volume of contracts awarded during May (Index Number 303, based on 1936-38) is a decrease of 27 points from April and a decrease of 15 points from May 1952. (F. W. Dodge Corp.)

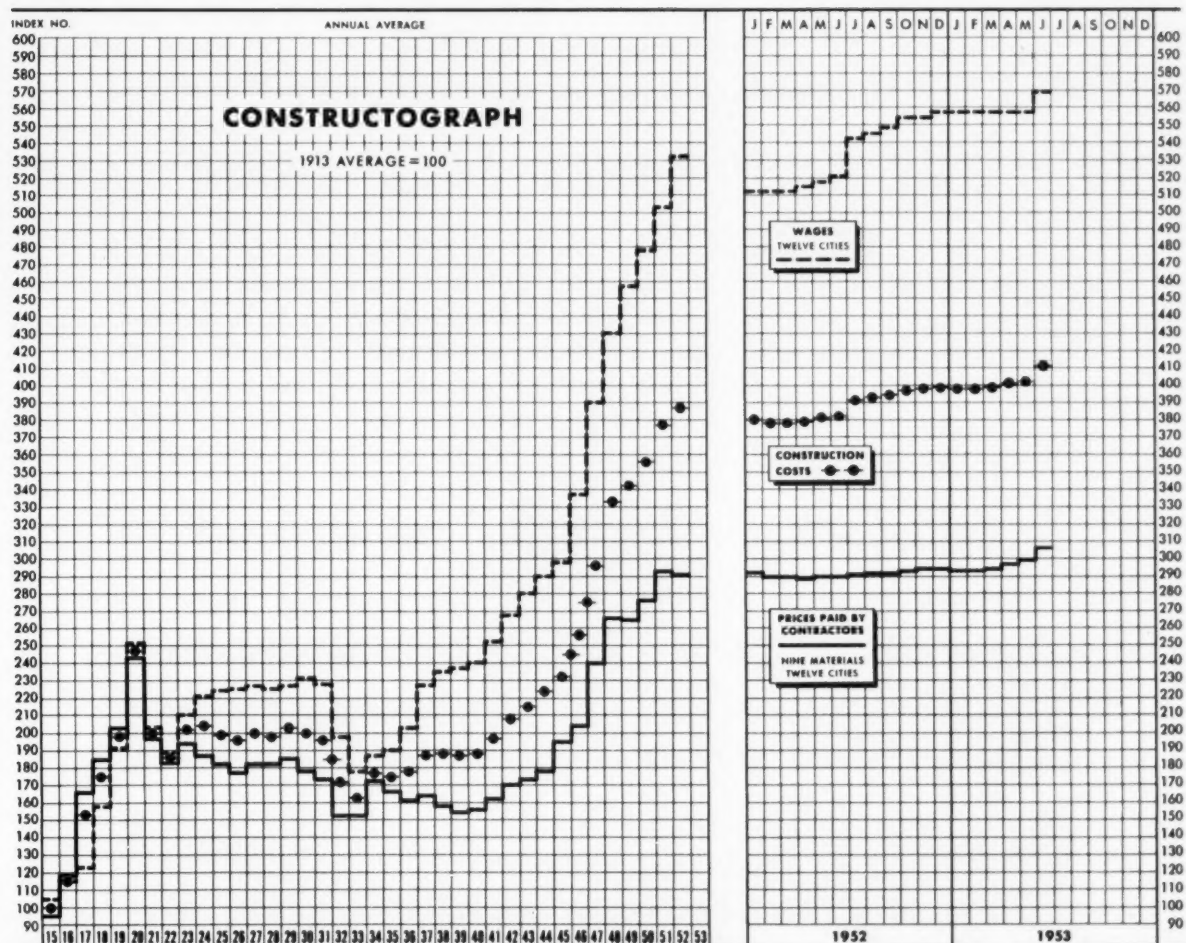
WAGE AND MATERIAL PRICE TRENDS

The average of wages in the principal construction centers of the United States stands at 569 for June. One year ago the average stood at 521. The average prices paid by contractors for basic construction materials for June stand at Index Number 306. The average a year ago stood at

REVENUE FREIGHT LOADINGS

Revenue freight loaded during the first 25 weeks of 1953 totaled 18,110,176 cars. For the same period in 1952, loadings amounted to 17,889,445 cars. This represents an increase of 1.2%.

● Wage, Material Price and Construction Cost Trends



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YOUR PERMANENT

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IN ALL COMMERCIAL AND INSTITUTIONAL FLOOR SYSTEMS, YOU SAVE HOURS OF TIME AND TONS OF MATERIAL WITH THE ONE STEEL JOIST THAT'S NAILABLE.

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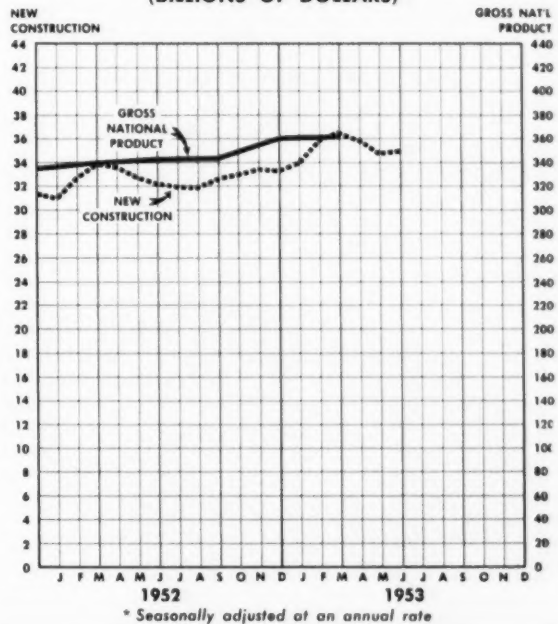
IN MEXICO D. F. — MACOMBER DE MEXICO, S. A. de C. V.

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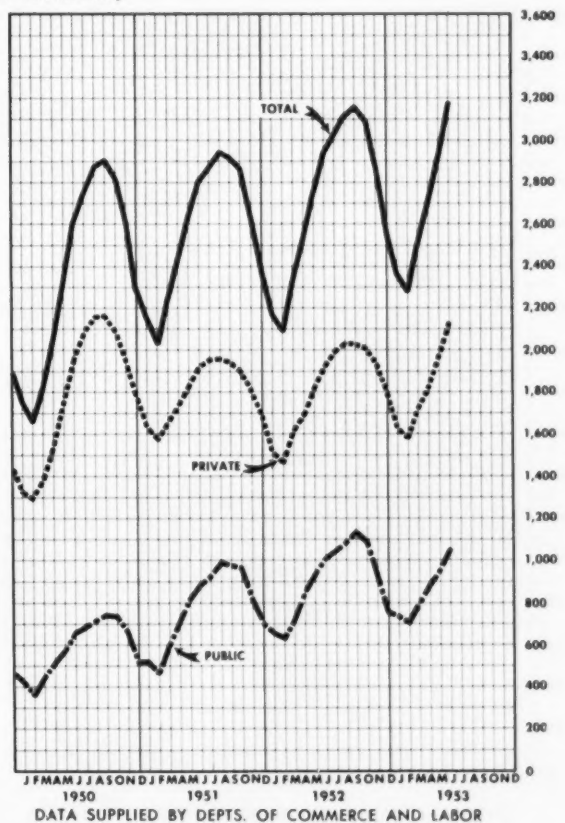
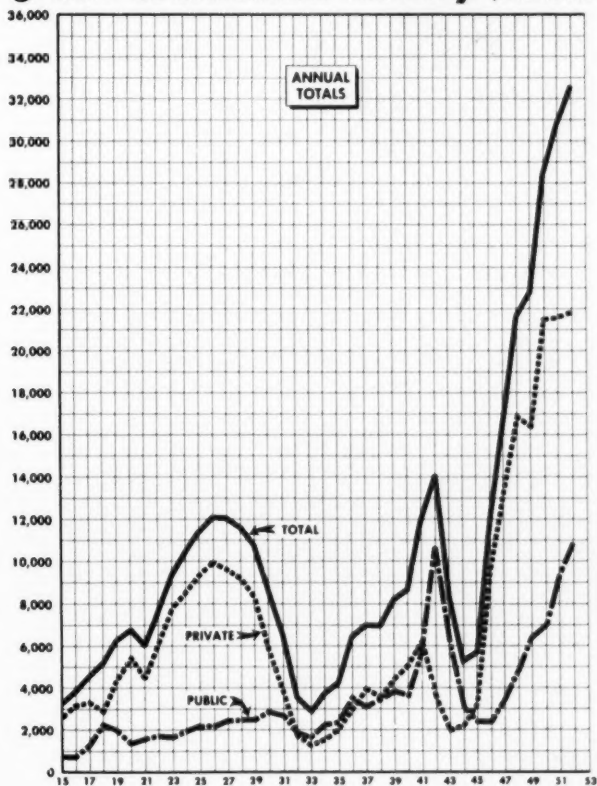
● **TOTAL Construction Compared with Gross National Product**
(BILLIONS OF DOLLARS)



● **NEW Construction Compared with Gross National Product***
(BILLIONS OF DOLLARS)



● **New Construction Activity (MILLIONS OF DOLLARS)**



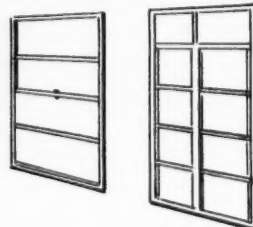


Architect M. J. Lahr says:

"To facilitate speedy, economical design and erection, we specified Truscon "O-T" Steel Joists, Steel Casements and Double-Hung Windows for the Rorick Apartment Building, at Omaha, Nebraska"



Rorick Apartments, Omaha, Neb.
M. J. Lahr, Architect
Rorick Construction Co., Contractors



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Truscon "O-T" Open Truss Steel Joists speed construction. Complete shop fabrication, absence of form work and minimum of field work, all make steel joists the most rapidly-erected fire-resistant construction. They are self-sustaining. Any number of floors can be erected at one time, with joists used as working platforms to speed other building operations.

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You'll find complete details and specifications on all Truscon Steel Building Products in Sweet's; or, write us for illustrated literature.

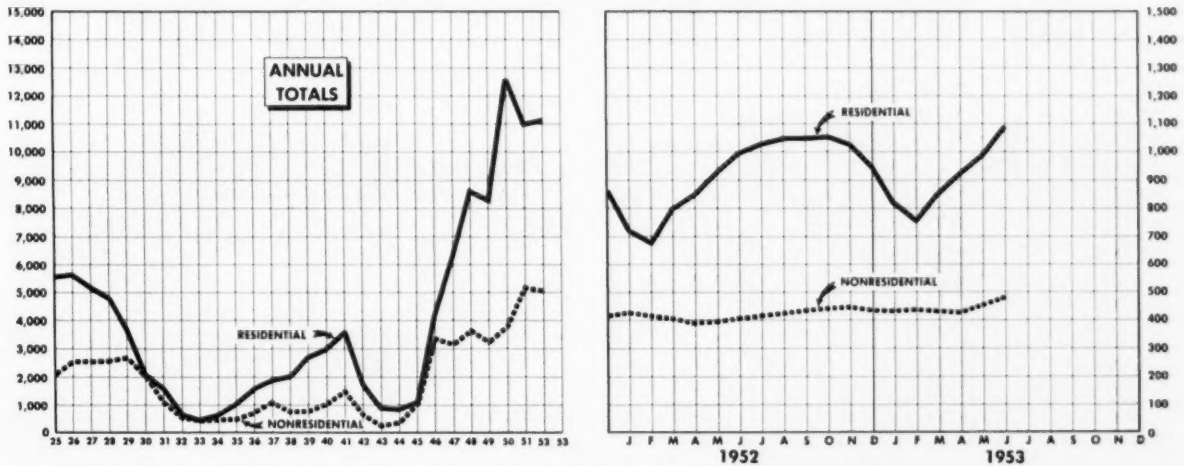


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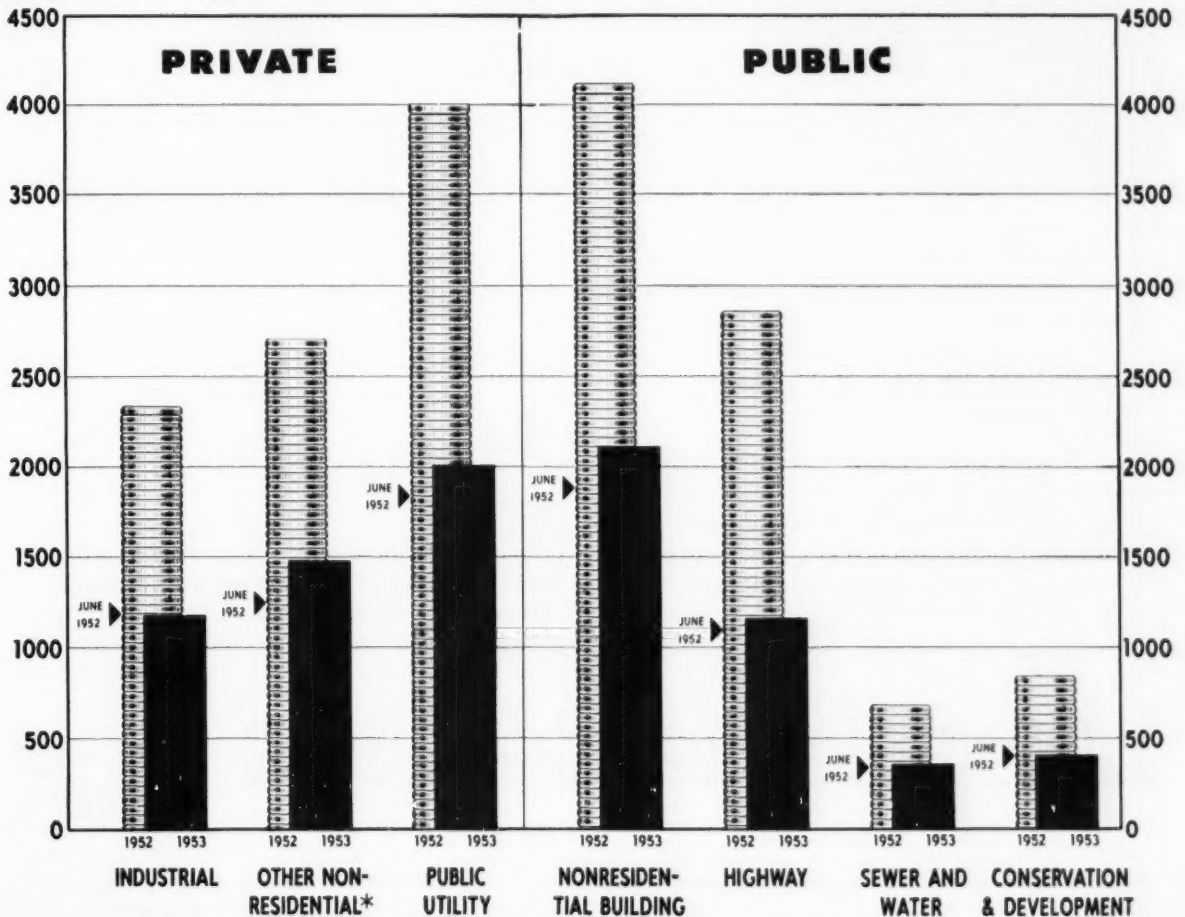
NEW CONSTRUCTION ACTIVITY

● Private Residential and Nonresidential Building * (MILLIONS OF DOLLARS)



* Residential excludes farm; Nonresidential includes industrial, commercial, institutional, and social and recreational building, but excludes public utility building.

● Selected Types: (CUMULATIVE, MILLIONS OF DOLLARS) 1952, 1953 VOLUME THROUGH JUNE



* Includes commercial, institutional, and social and recreational building.

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fine highways for the Arkansas traveler!



(State Capital—Little Rock)

In Arkansas—where miles of modern portland cement concrete highways, play host to the industrial, agricultural, and vacationing traveler—highway construction experts agree with outstanding concrete men everywhere on the principle of *air entrainment*.

They know that today's air-entrained concrete helps to build highways that are longer lasting, more durable and more resistant to extraordinary climatic conditions than ever before. But they've also learned that *correct* air entrainment is no accident—that proper air entrainment results *only* when the air entrain-

ing agent is properly proportioned to the other elements of the mix.



That's why the Arkansas Department of Highways specifies—"In all cases, air entrainment in concrete used in Arkansas highways will be achieved by adding the required amount of air entraining agent at the mixer."

★ ★ ★
If you have any problems or questions on the use and mixing of air-entrained concrete, the Marquette Service Engineer will be glad to help and advise you—contact any Marquette office.

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For Moderate Income Families in Large Cities

(Formerly referred to as the "Cost of Living Index," compiled by the Bureau of Labor Statistics)

Cost of living for the month ending May 15 set a new high for 1953, the Bureau of Labor Statistics reports.

Higher costs for certain food items and medical care pushed the Consumer Price Index up from 113.7 to 114, just 0.3% below the all-time high set last November.

The bureau reported the latest index at 9% higher than a year ago and 12% above the pre-Korean prices of June 1950.

Food prices inched upward one-half of one percent chiefly because of a 7% hike in pork prices and a 4½% boost in lamb prices.

Medical care rose 0.4% following increases in some cities of group hospitalization, medical and dental fees and hospital rates.

Housing items rose generally, led by a 0.7% increase in rents and most household goods and services.

This change in the index means a slight increase in the wages of approximately 3.5 million union workers, mostly in the automobile and railroad industries, who have their wages tied to the cost of living.

The Consumer Price Index, formerly calculated on the base 1935-39=100, was converted beginning January to the new base 1947-49=100 in compliance with recommendations of the Bureau of the Budget.

A portion of this index below indicates the average changes in retail prices of selected goods, rents and services bought by the average family of moderate income from March 15, 1951 to May 15, 1953.

They are represented here for use by employers who may wish to take these cost of living data into consideration when contemplating adjustments of wages based on increased living costs.

Aside from the change of the base years, the revised index includes prices of about 300 items, compared to some 200 for the previous index. The "weight" assigned to items is now based on facts concerning family expenditures of wage earners and clerical workers found in a survey on consumer expenditures conducted by the bureau.

The first five cities in the table below are checked and reported on monthly. The other 15 cities are surveyed and their indexes published quarterly.

| | 1951 | | | 1952 | | | 1953 | | |
|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | MAR. | APR. | MAY | MAR. | APR. | MAY | MAR. | APR. | MAY |
| Average..... | 110.3 | 110.4 | 110.9 | 112.4 | 112.4 | 113.0 | 113.6 | 113.7 | 114.0 |
| New York, N. Y..... | 109.0 | 109.1 | 109.6 | 110.2 | 110.9 | 110.7 | 111.2 | 111.1 | 111.4 |
| Chicago, Ill..... | 111.0 | 111.1 | 111.5 | 113.2 | 113.4 | 114.3 | 113.8 | 114.2 | 114.6 |
| Los Angeles, Calif..... | 111.1 | 111.1 | 111.5 | 114.2 | 114.6 | 114.5 | 115.4 | 115.6 | 115.3 |
| Philadelphia, Pa..... | 111.5 | 111.7 | 112.0 | 112.9 | 113.1 | 113.2 | 114.1 | 113.7 | 113.8 |
| Detroit, Mich..... | 110.8 | 110.6 | 111.0 | 113.0 | 113.6 | 113.6 | 115.2 | 115.2 | 115.8 |
| Atlanta, Ga..... | | | 113.6 | | | 114.6 | 116.7 | | |
| Baltimore, Md..... | 109.7 | | | 112.3 | | | 114.2 | | |
| Boston, Mass..... | 109.2 | 109.0 | 109.4 | 111.2 | 111.1 | 111.7 | | 111.7 | |
| Cincinnati, Ohio..... | 109.5 | 109.6 | 109.7 | 111.3 | 111.9 | 112.5 | 112.6 | | |
| Cleveland, Ohio..... | | | 110.4 | | | 113.1 | | | 113.7 |
| Houston, Texas..... | 113.6 | 113.7 | 113.7 | 114.8 | 115.0 | 114.8 | | | 116.8 |
| Kansas City, Mo..... | | 110.9 | | | 113.9 | | | 114.3 | |
| Minneapolis, Minn..... | 110.6 | | | 113.5 | | | | 115.1 | |
| Pittsburgh, Pa..... | 109.4 | 109.8 | 110.5 | 111.9 | 112.3 | 112.4 | | 112.8 | |
| Portland, Ore..... | | 112.1 | | | 114.7 | | | 115.4 | |
| St. Louis, Mo..... | 111.0 | | | 114.0 | | | 114.7 | | |
| San Francisco, Calif..... | 110.4 | | | 113.0 | | | 115.5 | | |
| Scranton, Pa..... | | | 109.7 | | | 112.1 | | | 112.0 |
| Seattle, Wash..... | | | 112.0 | | | 114.6 | | | 116.2 |
| Washington, D. C..... | | | 109.6 | | | 112.6 | | | 113.5 |

CATERPILLAR



Isabella Dam shows the main dam, lower left, and auxiliary dam at right. Granite hill between the two units has outlet tunnel passing through it and spillway over it. Canal feeding from auxiliary dam supplies a power company with water to turn turbines.

2,900,000 cu. yds. of fill moved quickly on Isabella Dam

**CAT* equipment and one of the largest rippers ever
built team to build a dam to control the Kern River**

Isabella Dam, 1,725 feet in length and 185 feet high, is ready to tame the unpredictable Kern River in California. Its completion relieves Bakersfield of the menace of floods and brings promise of greater irrigation to the lower San Joaquin Valley.

The idea was to regulate the Kern, a river of extremes. Its annual flow varies from 1,900,000 acre-feet to as little as 185,000. To do the job Isabella Dam is divided into two sections: the main dam consisting of 2,900,000 cu. yds. of fill; the auxiliary dam, 100 feet high, 3,325 feet long with 1,800,000 cu. yds. of fill. Separating the two is a hill

of granite, through which has been holed the 800-foot main outlet tunnel, and over which passes the spillway.

Macco Corporation, Morrison-Knudsen Company Inc., and River Construction Corporation were awarded a \$5,873,782 contract for constructing the main dam, completing the auxiliary dam, realigning a section of the canal and building a spillway. They enlisted the aid of a fleet of dependable, swift Caterpillar* machines to do the job which was designed and supervised by the Sacramento District, Corps of Engineers, U. S. Army.

The 2,900,000 yards of fill for the

main dam was decomposed granite. Using Cat DW20 Tractors and matching Scrapers, the contractors hauled a daily average of 25,000 cu. yds. over a distance of 4,000 feet in two 9-hour shifts.

The material was broken up by rippers, including one of the largest rippers ever built. Aluminum irrigation pipe was laid across the broken area. The material was sprinkled for several hours, sometimes as much as 48 hours, after which it was picked up by earth-eating DW20 Tractors and Scrapers. Compaction was obtained by a 50-ton Southwest rubber-tired tamper pulled by a



CAT DW20 AND SCRAPER hauls part of the 2,900,000 cu. yds. of fill needed for the main dam. Contractors used a fleet of DW20s on the job, along with D8s, No. 12 Motor Graders and D13000 Engines. With a haul distance of 4,000 feet, the DW20s carried a daily average of 25,000 cu. yds. in two 9-hour shifts per day. Most of the fill was decomposed granite.

DW20. Working in conjunction with the tamper was another DW20 pulling an 18-foot offset disk.

Rugged Caterpillar equipment entered into every phase of the job. In all, the contractors made use of fourteen DW20s with Scrapers, three DW20s with plows and compactors, eight D8s, two No. 12 Motor Graders and D13000 Diesel Engines to power Gardner-Denver compressors.

From experience these contractors know the dollar-saving advantages of standardizing on Caterpillar equipment. Through this wise standardization, their operators and mechanics become familiar with one make of equipment. There is no need to carry a stock of parts. Many parts on Cat Engines are interchangeable—and service from your well-stocked Caterpillar Dealer is prompt.

Why not have your Caterpillar



THREE CATERPILLAR UNITS work together on the auxiliary dam. Widening and raising the fill are a DW20 pulling a 50-ton tamper, a DW20 pulling an offset disk and a third DW20 spreading fill for the job.

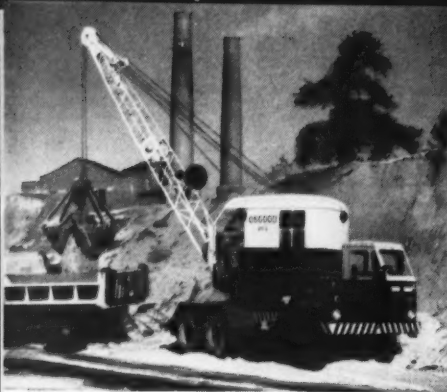
Dealer demonstrate the equipment that will do your job quicker and cheaper? Discover for yourself the reasons why the machines you see on the toughest jobs are always Caterpillar yellow.

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A CAT NO. 12 MOTOR GRADER finishes the bottom of a canal while D13000 Diesels power Gardner Denver 500 compressors on top of bank. Graders also maintained haul roads.



OSGOOD MODEL 202, 12 1/2-TON TRUCK CRANE



GENERAL MODEL 320 HOE, 3/4 CU. YD.



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MARION, OHIO

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OSGOOD MODEL 725, 30-TON MOBILCRANE

OSGOOD MODEL 820 DRAGLINE, 1 1/2 CU. YDS.

OSGOOD MODEL 1000 SHOVEL, 2 1/2 CU. YDS



5220

Sidelights for Contractors

By John C. Hayes, Counsel

Taxes

Depreciation Rates.—The Bureau of Internal Revenue has announced a new general policy hereafter not to disturb a taxpayer's depreciation deductions unless there is a clear and convincing basis for a change. Among the factors to be given consideration by the bureau are whether the taxpayer's depreciation rates are fair and reasonable under the circumstances, whether the taxpayer has followed a consistent practice, and whether any adjustments proposed are substantial. It is stated that careful consideration will be given to facts and arguments presented by the taxpayer with respect to obsolescence, as well as to his repair and maintenance policy.

Partnership Return.—Where a partnership sold its assets and reported the capital gain therefrom on the completed transaction basis, the Tax Court held that an individual partner was chargeable with his distributive share on the same basis and could not elect the installment method on his individual return.

Replacement Parts.—A taxpayer in the construction business was upheld by the Tax Court in deducting as current expenses the cost of replacing various truck, tractor, and trailer parts, which did not materially increase the value or life of the equipment but only kept it in usable condition. Involved were the replacement of two transmissions on trucks, the axles on a trailer, and a complete cleaning, overhaul, and replacing of various parts on a tractor.

Sale of Land with Crop.—The Supreme Court has determined that a citrus grower, who in the midst of the 1944 growing season sold her interest in the grove, including the unmaturing crop then on the trees, must treat the gain attributable to the crop as ordinary income rather than as capital gain. (For years beginning after 1950, however, the Revenue Code provides that sales of unharvested crops shall be treated as capital gain if the crops are sold with the land.) Of

general application and importance in the Supreme Court's opinion is the statement that, upon the sale of any going business, the sales price is to be comminuted into its fragments and these are to be separately matched against the definition of capital assets in the Revenue Code.

Cancellation of Contract.—Under a recent decision by a circuit court, a sum of money received for canceling or releasing a contract constitutes ordinary income. The court reasoned that giving up a contract is not a sale or exchange, as required by the Revenue Code for capital gain treatment. Since this decision disagrees with others that have held the cancellation or release of a contract to be the equivalent of a sale or exchange of the contract, it appears that the issue will remain unsettled until ruled upon by the Supreme Court.

Accrual of Income.—The Tax Court decided that an accrual basis contractor properly included in its 1946 tax return amounts received in that year after reaching an agreement upon what constituted a "fair and reasonable" or "equitable" basis for payment and after its contract was amended to include the prices agreed upon. Until the definite amount was arrived at by negotiation in 1946, the taxpayer had only a claim on a quantum meruit basis for goods and services rendered, which the court considered to be too uncertain in amount to have accrued in 1945.

Back Pay.—A Circuit Court has ruled that the Revenue Code relief provision for the receipt of back pay should be allowed an employee for the amount received from his former employer in settlement of a dispute over alleged past due commissions where settlement was reached after litigation was threatened but not actually instituted. This relief provision permits an employee receiving "back pay," as defined in Code Section 107(d), in excess of 15% of his gross income in a taxable year, to compute his tax as though the back pay had been received in prior years to which it is attributable.

Public Contracts

Set Off of Taxes.—The Supreme Court states that the Assignment of Claims Act of 1940 should be construed to carry out the purpose of Congress to encourage the private financing of government contracts. The court ruled that the act's prohibition against set-off of a claim arising "independently" of a contract, prevented the government from setting off its claim for unpaid taxes withheld by the contractor from the latter's employees in performance of the contract, against the claim of the contractor's assignee for contract payments.

Contractor's Delay.—The Defense Production Act, according to an opinion by the Comptroller General, does not prevent recovery of delay damages from a contractor whose delay resulted from his supplier's compliance with the act before the Amendment to the Act on June 30, 1952; although delay resulting from compliance after such date either by the contractor or by his supplier or subcontractor comes within the act's relief provision.

Cost Plus Contract.—Under a decision by the Armed Services Board of Contract Appeals, the reimbursement of a cost-plus contractor may be reduced by the amount of kickbacks or commissions received by the contractor's expeditors from suppliers to whom they directed purchase orders. It was felt that the reasonableness of the suppliers' prices was at best uncertain, to the extent in each case of the amount of the kickbacks.

Renegotiation.—By amendment to its regulations under the 1951 act, the Renegotiation Board has explained the circumstances under which a contractor may claim, as a cost of performing renegotiable business, losses resulting from the sale or disposition of, or damage to, certain tangible property and land, incident to the discontinuance of a renegotiable operation.

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Keep your eye on Miti-Mite — only a few months old but already the big hit of the construction world. And good reason . . .

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For getting around fast, Miti-Mite mounts easy on any suitable truck — yours or ours. Either way, you get the full measure of P&H famed *Stability!* See it now, or ask for literature.

All the stability you need for shovel, crane, dragline, trench hoe, clamshell or magnet service. Shovel capacity, 11 cubic feet — as a Crane, 7-tons and over depending on truck size.

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Skill, Integrity, Responsibility

THE NAMES, addresses and chapter affiliations of all members of The Associated General Contractors of America are published in this issue of *THE CONSTRUCTOR*, the largest in its history.

This year there are more than 6,300 memberships in the A.G.C., and there are 122 chapters and branches in all states and Alaska. The association was founded in 1918 with 97 members. With two temporary exceptions, the membership has grown steadily since that time.

A.G.C. members are the backbone of the general contracting industry. Because they accept the complete responsibility for the execution of construction projects they are also key figures in the construction industry.

In recent years construction has grown to become the nation's greatest single activity, exceeding in value that of total agricultural activity.

The A.G.C. has made frequent use of the words, *America Progresses Through Construction*, to dramatize the fact that there is scarcely any activity in our civilized life which does not require some kind of construction.

The nation and its communities need homes for better living; highways, railroads and airports for better transportation; plants for increased and more efficient production; many facilities for development of natural resources; and hundreds of other projects for the growth and development of the communities and for the fulfillment of our cultural needs.

During the first six months of 1953 the construction industry continued to operate at a high level of activity to construct the projects vitally needed by public and private investors. Actually there has been an 8% increase above the activity during the comparable period in 1952 when for the entire year another new record volume of construction was put in place.

The general contracting industry today is one of the best examples of the American system of free enterprise. It is a highly competitive industry where the force of competition requires that the surviving companies be constantly alert to all possible methods of modernizing and improving their operations so that they can achieve more efficiency. This competition assures the public that it does receive maximum value for its investment in construction.

In addition to their work in the continental United States, American contractors are at work in practically all parts of the free world constructing projects for American corporations, foreign governments, or others. Throughout this country and in many other parts of the world A.G.C. members doing outstanding work in constructing the projects are essential to the national defense.

Whenever there are disasters in this country—flood, fire, tornado, earthquake or other—it is A.G.C. members and others in the construction industry who clear the debris and restore essential facilities to use.

As some of the articles in this magazine suggest, the A.G.C. carries out a wide range of activities, which enable

contractors to operate more efficiently and more economically, and which are of benefit to its members, to the industry generally, and to the public.

A.G.C. members are playing an important part in the building of a greater America. The chapters and the national association are playing an important part in the development of a greater construction industry.

For more than 34 years the A.G.C. emblem has been the symbol of skill, integrity and responsibility in construction. For the future it will be even greater assurance.

Government Relations Studies

Two studies are about to get underway which can have a profound influence on the functions, operations and sources of revenue of federal, state and local governments and on federal-aid programs.

When legislation has been finally enacted—already passed by both the Senate and House but now in conference to adjust the differences—two commissions will be appointed. (Page 29)

One commission, probably to be called the Commission on Governmental Operations, will have greater authority than the previous Hoover Commission to study the organization and methods of operation of all federal agencies and to recommend which agencies or functions should be abolished when found in competition with private enterprise.

The other, probably to be called the Commission on Intergovernmental Relations, will be authorized to make a broad and comprehensive study of all aspects of the proper role of the federal government in relation to the states and their political subdivisions. This commission will give particular study to the proper functions, operations and sources of revenue of federal, state and local governments.

Federal grants-in-aid programs will be studied by both of the commissions. While such programs are not new, with federal aid to land grant colleges going back to 1862 and aid to agricultural experimental stations dating from 1887, many of the programs have been undertaken during the past 20 years.

A number of the federal-aid programs relate directly to construction: for highways, airports, hospitals, housing, water pollution control and schools.

It is likely that when the federal commissions have been established, a number of similar state commissions will be appointed, as well as state and local citizens' committees to do research and advise the state and federal commissions.

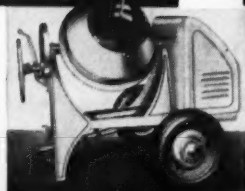
These commissions and committees provide members of The Associated General Contractors of America the opportunity to perform a public service by offering their services and their knowledge of the construction industry to assist the commissions in arriving at sound decisions on what are the proper functions of federal, state and local governments with respect to public works construction, and the proper sources of revenue to finance the projects.

**SAWS**

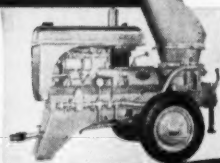
Masonry as shown
and Radial Wood-
workers

TILTING MIXERS

The original and
still the best

**JETCRETERS**

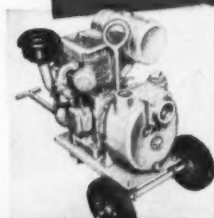
for Pneumatic Placement
of Concrete

**TRANSCRETE**

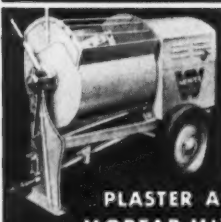
3 — 4½ — 5½ Yard
Models

You've got the right combination

with

**PUMPS**

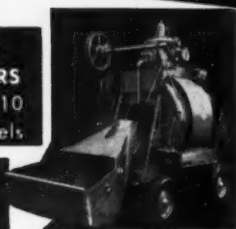
New Dual-Primers
from 1½" to 10"

**PLASTER AND MORTAR MIXERS**

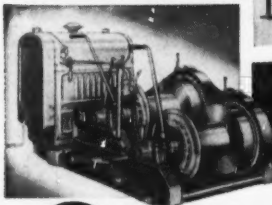
3 — 4, 6, 8 and 10
— 12 cu. ft. models

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All popular sizes —
3½ to 84 cu. ft.

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and complete line
of Batching Equip-
ment

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For any need—over
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AMERICA'S FINEST LINE

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IN ALL PRINCIPAL CITIES



CONSTRUCTION MACHINERY COMPANY, Waterloo, Iowa

Shown at the May meeting of the A.G.C. Executive Committee in Washington, clockwise around the table, are: F. L. Shackelford, Greenville, S. C.; John C. Hayes, legal counsel, Washington; Earle J. Wheeler, Cincinnati, chairman, Subcontractor Relationships Committee; Frank W. Robertson, Huntington, W. Va., chairman, Legislative Committee; A. S. Macdonald, Tacoma, Wash.; Arthur H. Wells, Chicago; Glen W. Maxon, Dayton, Ohio; C. S. Embrey, A.G.C. assistant executive director; Executive Director J. D. Marshall; President C. P. Street, Charlotte, N. C.; Vice President John MacLeod, Paramount, Calif.; Managing Director H. E. Foreman; Frank F. Burrows, Burlingame, Calif.; George C. Koss, Des Moines; P. M. Thornton, Hancock, Mich.; C. W. Cunningham, Omaha; Arthur S. Horner, Denver; W. Murray Werner, Shreveport, La.; and D. W. Winkelman, Syracuse, N. Y.

- **A.G.C. Guided by Responsibility to Industry and National Welfare Page 23**
- **Classification of A.G.C. Firms Page 23**
- **A.G.C. Chapter and National Staffs Meet to Plan Association Programs . Page 24**
- **Roster of A.G.C. Members Page 245**

Reni Photo



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Trinity white—the whitest white cement—is a true portland.

The gleaming sparkling whiteness as mass or contrast increases the stature of good design. Use it for architectural concrete units; stucco; terrazzo; and wherever high light-reflection is indicated.

Trinity white meets all Federal and ASTM specifications.

← This grayness of grey portland cement is absent in Trinity White. That's why Trinity White is best where concrete is to be tinted. There is no muddiness to your colors. You get cleaner, truer values.



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» THE directory of The Associated General Contractors of America, an annual feature of THE CONSTRUCTOR since 1934, is published in this issue beginning on page 245.

It records a total membership in the association of 6,358, a gain of 222 over last year, listed by name and address both alphabetically and by membership in chapters or branches. The names and company affiliations of officers, directors, members of the Advisory Board, A.G.C. committees, national joint cooperative committees, the national staff, and presidents and managers of the local associations affiliated with the national organization are also published.

Membership Doubled in 9 Years

There are 122 A.G.C. chapters and branches from every state in the union and Alaska, one more than last July. The growth of A.G.C. membership, which has doubled since 1944 and tripled since 1934 has been uninterrupted except for declines in the middle twenties and thirties.

Founded on Nov. 21, 1918 after President Woodrow Wilson had pointed up the need for national organizations through which the government could have effective contact with

A.G.C. Guided By Responsibility Of Industry in National Welfare

- Growth of Association Continues; 222 New Members
- Directory Lists 6,358 Memberships, 122 Chapters

the construction industry, A.G.C. is the one national trade association of general contractors of all types and is recognized as the spokesman for the general contracting industry.

The years since the establishment of A.G.C. have seen a vast transformation wrought in the United States in which the construction industry has played a truly tremendous role. As the American economy expanded with a dynamism such as the world had never seen, the construction industry grew with it.

With a firm sense of its responsibility to the welfare of the people and a dedication to its task of providing the physical framework for America's growth, the construction industry has advanced to front rank as the nation's largest single industry.

This responsibility inherent in the industry's role in the country's material progress has been a matter of

major emphasis by A.G.C. since its founding. It is embodied in the association's Code of Ethical Conduct in the following words:

Founded on Trust

"The Associated General Contractors of America realizes that the vital bearing of the construction industry upon the well-being, comfort and safety of the entire public injects into the contractor's function an element of professional responsibility founded upon honor and trust.

"This responsibility requires, among other things, that we seek to improve construction methods, management and service, to eliminate uneconomical and improper practices, and to build responsibility throughout the industry.

"It surely cannot mean less than the establishment of construction service which will give to the investing public an assurance of skill and faithful performance."

A.G.C.'s membership qualifications are designed to make observance of this code a reality in the everyday conduct of the affairs of its members and chapters and branches.

To qualify for membership in the Association a general contractor must have been engaged in the business of general contracting for two or more years prior to making application and possess the essential attributes of skill, integrity and responsibility.

Skill—He must possess the necessary technical knowledge and practical experience, as applied to his particular form or group of undertakings, to enable him to carry them to completion in a workmanlike and economical manner.

Integrity—He must consistently and persistently comply with the spirit as well as the letter of his contracts. He must have business experience and handle every transaction with fairness and honor.

Responsibility—He must possess cash or credit to meet all his commitments, also the equipment and organization for the satisfactory performance of his undertakings.

Chapters, Firms Listed in State Roster

- All Types of Construction Executed by A.G.C. Membership

» AN INDEX to the listing of A.G.C. units by states is on page 267. The state roster itself begins on page 308. Members are listed under the chapter or branch to which they belong with notations as to the type or types of construction they perform, such as building, highway and airport, or heavy and railroad construction.

While some firms confine themselves to one general type of work, others engage in a wider variety. Within the membership of The Associated General Contractors of America, all types of construction projects essential to the growth of America are executed.

3,498 A.G.C. members report that (either exclusively or as part of their work) they perform building construction such as industrial plants, office buildings, apartments, hotels, large scale residential projects, warehouses, public buildings, department stores and other commercial projects, as well as additions and repairs to buildings.

2,708 A.G.C. members (either exclusively or in addition to other work) construct highways, roads, streets, alleys, sidewalks, parkways, airports, athletic fields, highway bridges and sewage and waterworks incidental to street and highway improvement.

2,358 A.G.C. members (either exclusively or as part of their work) perform heavy engineering construction including dams, tunnels, bridges, waterworks, subways, foundations, piers, viaducts, drainage, irrigation and sanitation projects, water power development, docks, locks, levees, flood control and harbor dredging projects, pipelines and transmission lines.

330 A.G.C. members report that as part of their work they undertake new construction and maintenance and repair operations for railroads.

It is estimated that A.G.C. members execute more than 80% of such construction undertaken by contract.

A.G.C. Executives' Meeting Called Success

• Chapter and National Staff Members Talk Shop in Chicago

» THE FIRST work session of members of the chapter and national staffs to discuss the methods of how the various programs of The Associated General Contractors of America and its chapters can be carried out more effectively both nationally and locally was held in Chicago June 17-18.

The two-day meeting was attended by 59 men from 43 chapters and the national staff. Only contractor president was A.G.C. President C. P. Street, Charlotte, N. C., who presided but

took no part in the discussions.

The meeting was opened by Robert Patten, Managing Director, Carolinas Branch, Charlotte, N. C., who related that the sessions stemmed from a suggestion approved by the A.G.C. Executive Committee for a meeting to be held at a time other than a Board Meeting or Annual Convention at which there could be shop talks by chapter and national staff members on how to carry out the association's work most effectively.

President Street told the meeting

that "the officers, the members of the Executive Committee, and others of the A.G.C. who have studied the plan for this meeting believe that it and others to follow can be extremely helpful in carrying forward the A.G.C. program.

"You have heard me previously state my strong conviction that there is the greatest need for bringing general contractors together to take action on their common problems and need for cooperation in the construction industry, and you have heard me state that you secretaries and managers and the national staff are the catalysts which bring about this cooperation.

"To me and to the other officers and members of the Executive Committee it is the greatest common sense that those of you who act in a professional capacity to carry out the A.G.C. program should have opportunities such as this for thorough discussions of the hundreds of details as well as the broad principles which are involved in your work."

15-Point Agenda

James D. Marshall, A.G.C. Executive Director, in presenting the 15-point agenda, with most points having several subheadings, reported that it was compiled from suggestions from secretaries and managers and members of the national staff in consultation with officers of the A.G.C. Secretaries' and Managers' Council.

Generally, each subject was introduced briefly by a member of the national staff. Then followed detailed discussions and questions and answers in which all participated.

The agenda included such subjects as special activities of the building, highway and heavy construction divisions and chapters in those fields; national and local participation in civil defense; contacts with producer and distributor organizations; the A.G.C. role in national defense, nationally and locally; legislative information service; labor activities; accident prevention; apprentice training; public relations and administrative problems.

There appeared to be unanimous agreement among those present that the discussions had led to a clearer understanding of the various A.G.C. programs which would lead to more effective work by the national association and the chapters and that such meetings should be held in the future. Many enthusiastically stated it was one of the most constructive meetings they had ever attended.



California, Here We Come!

California chapters extend a hearty invitation for A.G.C. members to attend the 35th annual convention in Los Angeles, March 1-4, 1954. Pictured while attending the 34th annual convention in Miami, are, left to right, R. A. Smith, Los Angeles, general chairman of the 1954 convention committee; Spencer Webb, Los Angeles, president, Southern California Chapter; Melvin F. Gautier, San Francisco, president, Central California Chapter; and Dallas Young, San Francisco, president of the Northern California Chapter. The four California chapters will be hosts.

The Mid-Year Meeting of the A.G.C. Governing and Advisory Boards will be held at the Edgewater Beach Hotel, Chicago, September 14-16, 1953.

The A.G.C. Executive Committee has scheduled meetings for Blowing Rock, N. C., July 27-28, and Washington, D. C., November 23-24, 1953.

The invitation of the A.G.C. of St. Louis, Kansas City Chapter, and A.G.C. of Missouri has been accepted to hold the 1954 Mid-Year Board Meeting at the Chase Park Plaza Hotel, St. Louis, September 27-29, 1954.

» MID-YEAR 1953 finds the nation's greatest industry booming along at an all-time peak in activity, both dollar-wise and in terms of physical volume, with prospects brightening that new construction will pass the \$34 billion mark at the end of the year.

Official volume figures released this month by the Departments of Commerce and Labor show construction expenditures have successively registered record levels in each month of 1953 for an all-time high total of \$16 billion for the first six months—an 8% increase over the same period of 1952.

Private construction totaled \$10.9 billion for the first six months—an increase of 8%—and public types tallied \$5.1 billion, a 7% increase.

In June new construction was being put in place at the rate of \$3.2 billion a month, and contract awards indicate no sign of diminishing. The June figure was 9% higher than that of May.

Record Physical Volume

The fact that the agencies report a record even after adjustment for price increases to show actual physical volume indicates both the vitality of the construction industry and the basic health of the economy which is generating continuing demand for most types of construction.

Private non-residential construction, totalling \$2.7 billion for the first six months—9% above last year—was

\$34 Billion in New Construction Seen As Volume Hits New Peak

- Reaches \$16 Billion in First Six Months' Total
- Commercial, Residential, Highways, Utilities Tops

characterized by a tremendous upsurge in commercial activity that exceeded anticipations of economists early in the year.

Commercial construction spurred 43% ahead of the same period in 1952, unleashed by the removal of material and construction controls at the beginning of the year. This activity was paced by wide-scale construction of stores, restaurants and garages, and particularly the development of new community shopping centers.

Private industrial construction, which has been showing a surprising strength above that forecast by economists, totals \$1.2 billion for the half-year, and now lags only a percentage point behind the same period of 1952.

Public utilities also are showing record expenditures, with private firms spending over \$2 billion for

new facilities during the six months.

New residential construction likewise increased 9% over the similar period last year, totalling \$2.7 billion.

Public Gains, Too

Highway construction reached the highest level on record, totalling nearly \$1.2 billion for the first six months, 6% ahead of last year.

Military and naval work, 7% ahead, reached a new postwar peak at \$678 million.

Public school construction rose slightly to \$812 million, and public industrial construction (mostly atomic energy) jumped 28% during the first six months to \$887 million.

The only significant declines among categories occurred in private and public hospital and institutional construction, and in public housing, which had been anticipated.

Business Optimism Defies Gloomy Forecast

- Cautious Confidence Characterizes Investment Planning

» THE CAREFUL, yet unwavering optimism that has continued to dominate the business world has forced many economists who had engaged in pessimistic crystal-gazing last fall and early this year to re-assess their outlook for the future.

While private forecasters have tended to continue looking for signs of recession gremlins, most government economists now seem to agree that no such disaster is in sight. More important, American businessmen are continuing to back up their optimistic feeling with plans for record levels of plant and equipment investments. And some "big business" men have made a point in recent weeks of trying to brush away any such fears in speeches pointing to the brighter side of prospects for the future. They have been joined by members of the President's Cabinet, notably the Secretary of Commerce.

Ever since the end of World War II, it apparently has become a habit of some economists to forecast a "re-

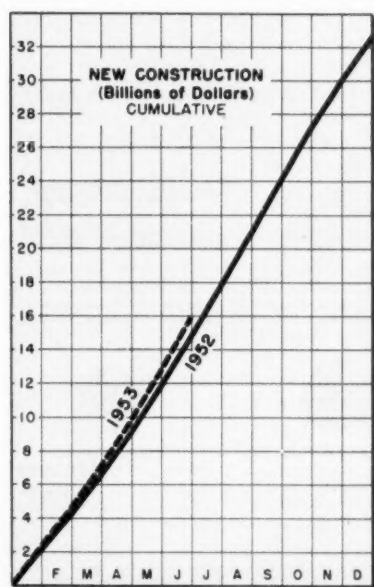
cession" some nine months to a year away. But they have never occurred.

While there are some uncertainties stemming from the automobile market, farm prices, the defense budget, Korean truce talks, and the "tight money" policy, there are stronger steadying influences, such as the record construction volume now being put in place, ever higher plant and investment expenditures planned by business, a more stable price structure indicating a good balance between supply and demand, a fairly high volume of unfilled orders, and the "free enterprise" climate of the new administration.

Record Capital Outlays

The brightest sign that has appeared on the economic horizon this year is the indication that American business may spend more than \$27 billion on new plant and equipment this year, substantially surpassing the previous record of 1952.

Latest surveys released by the Com-



On this New Jersey Turnpike project, McKiernan-Terry Pile Hammers were used to drive approximately 1,500 Union Metal Manufacturing Company Monotube cast-in-place steel piles totaling 50,000 linear feet and 200 precast piles totaling 12,000 linear feet for 16" pier bents in 29 structures.

hard pile driving conditions...

...but McKiernan-Terry Hammers helped to finish project ahead of time

The contractor's own words tell this story best.

S. J. Groves & Sons Company reports:

"We used three McKiernan-Terry '9-B-3 Double-Acting hammers and one McKiernan-Terry Double-Acting 11-B-3 hammer in the construction of 21 miles of the New Jersey Turnpike in Gloucester and Salem counties. *The driving was unusually hard*, the foundation being water-bearing sand and gravel in the pier foundations and compacted fill for the abutments. *The McKiernan-Terry Hammers stood up very well under this severe driving and we are well pleased with the performance of the hammers.* The work was completed ahead of time."

No wonder contractors all over the nation rely on the power and dependability of McKiernan-Terry equipment. The wide-range McKiernan-Terry line includes 16 sizes of pile hammers and 2 sizes of pile extractors. Write for Bulletin.

Other McKiernan-Terry Products



MEAD-MORRISON COAL AND ORE UNLOADERS AND BRIDGES

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Range of types and sizes take bulk materials loads up to 25 tons. Ruggedness without excess weight.



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merce Department and the Securities and Exchange Commission reveal businessmen plan to spend \$7.2 billion and \$7.1 billion respectively in the second and third quarters of 1953.

"If present programs materialize, plant and equipment expenditures for the first nine months of this year will total \$20.5 billion, 7% higher than the corresponding period of 1952," the agencies reported. "If this rate of investment is achieved, it appears likely that the previous estimate of \$27 billion for 1953 will be exceeded."

The survey indicates that the greatest capital outlays are expected by public utilities, with \$3.3 billion planned for the first nine months; manufacturers expect a 7% increase, concentrating on nondurable goods industries; and railroads schedule a slight increase. Little change is shown in mining and commercial companies, while the only decline (2%) is expected by non-rail transportation companies.

"On the basis of the estimates furnished, plant and equipment expenditures are expected to reach new records in the second and third quarters of this year," the agencies continued. "On a seasonally adjusted basis, the scheduled outlays indicate annual rates of \$28.4 billion in the second quarter and \$28.7 billion in the third quarter of 1953, as compared with outlays at the rate of \$27.2 billion in the first quarter."

Business Usually Spends More

It is a matter of record that in recent years business generally has spent more in capital outlays than it originally anticipated in figures collected by the Commerce Department and Securities and Exchange Commission.

Last December, when the Commerce-SEC survey of business prospects for 1953 showed capital expenditures were planned in the vicinity of \$26.3 billion, general surprise was expressed that the investments totalled only slightly less than the record 1952 expenditures.

Last month's forecast based on later surveys that 1953 will substantially surpass 1952 should largely erase fears of a recession in the immediate future.

It also should be pointed out that the main areas of expansion reflected are not directly connected with the defense program, but relate to civilian production.

Favorable Future Equipment Market Seen

• Maddock Predicts Good Supply of Construction Machinery

» TRUCE conditions in Korea will not lessen the demand for construction equipment but distributors and contractors across the nation must intensify their plans to meet increased competition with more efficient use of their dollar supply, according to an officer of one of the biggest construction equipment financing firms.

"A leveling off in the demand for equipment for military preparedness should not cause any material reduction in total equipment purchases," said S. D. Maddock, president of C.I.T. Corporation.

Continuing Demand Seen

Population increases and the geographic shifting of population will boost the economy, Mr. Maddock said, particularly in the construction industry since these factors will call for more housing, more schools, roads, airports, public utilities and the like.

Mr. Maddock said the over-all demand for construction equipment will stay about where it is now and the supply of construction equipment will be relatively more plentiful for civilian use.

"This means a large, fast turnover market lies ahead, but good business won't mean better profits for contractors and equipment distributors, unless they maintain a fast dollar turnover," he added.

The Distributor's Problem

From the equipment distributors' standpoint, Mr. Maddock pointed out that five major factors cause dollar "stagnation": fixed assets in plant and shop equipment, equipment and parts inventory, rental fleets, open accounts receivable, and self-financing of installment receivables.

Self-financing of installment receivables, Mr. Maddock said, is the "part of a business, more than any other,

that can slow up dollars in their turnover. There is no valid reason why a distributor should provide his business with so many dollars that he can be banker to all his customers. A financial institution can much better provide the substantial and, from time to time, fluctuating quantities of dollars needed to finance installment receivables."

Mr. Maddock also suggested that some distributors are writing contracts for equipment purchases that are too short as to terms. He said this often happens because the distributor does not realize that independent financial institutions are equipped to extend the longer terms needed by many contractors.

"With higher priced equipment built to last longer, we are now prepared to consider terms of 36 months where the kind of equipment, the credit worthiness of the contractor, and his requirements are such as to make it sound business."

The Contractor's Problem

"It is equally important," he said, "for the contractor to turn his dollars over rapidly if he is to do sufficient business and make substantial profits. The contractor cannot do that successfully unless he keeps his financial condition liquid so he is able to carry payroll, materials, and other preparation and work costs for the period of time between acceptance of his bid and the payment of estimates.

"To keep working capital liquid and at the same time to purchase sufficient cost-saving equipment to do the job efficiently means that the contractor should fund his equipment purchases for a period long enough to be suitable to his jobs on hand and his anticipated income. Contractors in consultation with distributors and financial institutions can secure equipment finance terms of from six to 36 months, depending on their individual needs."

According to Mr. Maddock, contractors who are well supplied with equipment but who need additional working capital for job preparation can use their equipment fleets as a borrowing base for additional working capital needs and are well advised to do so if they have sufficient profitable work on hand or ready to bid.

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BITE



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For severe service in excavating and dredging hard materials. Heavier and more rugged than Type "M" with longer and larger lower arm bearings. Sealed from grit.

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Still heavier than "D" with extra large shafts and bearings. For dredging and the severest kinds of excavating.



TYPE "M" GENERAL PURPOSE BUCKET

Primarily for excavating but efficient in handling compact materials, large crushed rock, etc. Overloads in loose materials. Narrow buckets available for trench and cramped excavating.



TYPE "K" STANDARD BUCKETS

For rehandling bulk material. Light but strong. Can be equipped with counterweight jackets, also bottom teeth for certain kinds of digging.

Light and Extra Light Type "K" Built lighter for greater capacity in materials which do not require the weights of the Standard Type "K" for penetration.



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Wider and heavier than corresponding sizes of "K" Buckets. For unloading barges, flat cars, stock pile work, etc. Good for "clean up".

Light Type "S" Rehandling Buckets Lighter than Standard "S" Buckets but designed to have equal strength and durability.



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for trench excavation and straight down digging with vertical and parallel walls are available for "M" and "D" Buckets.

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» THE construction industry will have a direct interest in the actions of two commissions which will be established soon to study the basic problems of governmental functions, operations, and sources of revenue.

Legislation is nearly ready for final enactment by Congress which will create two commissions, described by the Senate Committee on Government Operations as follows:

• *Commission on Governmental Operations*, authorized to make studies and investigations of the present organization and methods of operation of all agencies of the federal government, and to submit recommendations to the Congress for appropriate action designed to abolish services, activities, and functions not necessary to the efficient conduct of the government, or which may be found to be in competition with private enterprise.

• *Commission on Intergovernmental Relations*, authorized to make a broad and comprehensive study of all aspects of the proper role of the federal government in relation to the states and their political subdivisions, and to make findings and recommendations to the President and the Congress with respect thereto.

Action Taken by Citizens

Action to encourage the establishment of similar state commissions, and to encourage establishment of state and local citizens committees to do research and assist the state and federal commissions has been started by the Chamber of Commerce of the United States at a meeting held in Washington, June 10.

Of especial interest to the construction industry will be the studies given to the federal-aid programs, particularly for highway, airport, school, hospital, water pollution and other forms of construction.

Creation of the commissions was recommended by President Eisenhower in a message to Congress on March 30 in which he stated in part:

"The present division of activities between federal and state governments, including their local subdivisions, is the product of more than a century and a half of piecemeal and often haphazard growth. This growth in recent decades has proceeded at a speed defying order and efficiency. One program after another has been launched to meet emergencies and expanding public needs. Time has rarely been taken for thoughtful attention to the effect of these actions

Federal-State Fiscal Relations to Be Studied by Commissions

- Grants-in-Aid Programs to Be Examined Carefully
- Several Construction Programs Are Involved

on the basic structure of our federal-state system of government.

"Now there is need to review and assess, with prudence and foresight, the proper role of the federal, state and local governments. In many cases, especially within the past 20 years, the federal government has entered into fields which, under our Constitution, are the primary responsibilities of state and local governments. This has tended to blur the responsibilities of local government. It has led to duplication and waste. It is time to relieve the people of the need to pay taxes on taxes.

"A major mark of this development has been the multiplication of federal grants-in-aid for specific types of activities. There are now more than 30 such grant programs. In the aggregate, they involve federal expenditures of well over \$2 billion a year. They make up approximately one-fifth of state revenues.

"The maintenance of strong, well-ordered state and local governments is essential to our federal system of government. Lines of authority must be clean and clear, the right area of action for federal and state governments plainly defined. This is imperative for the efficient administration of governmental programs in the fields of health, education, social security, and other grant-in-aid areas."

Describe Function of Commissions

The Commission on Governmental Operations, as described in the Senate committee report, would be empowered to make studies and recommendations to Congress to promote economy, efficiency, and improved public service with respect to:

1. Methods and procedures for reducing expenditures to the lowest amount consistent with the efficient administration of essential services, activities, and functions.
2. Eliminating duplication and overlapping of services, activities, and functions.
3. Consolidating services, activities, and functions of a similar nature.

4. Abolishing services, activities, and functions not necessary to the efficient function of government.

5. Eliminating non-essential services, functions and activities which compete with private enterprise.

6. Defining responsibilities of officials.

7. Relocating agencies now responsible directly to the President in departments or other agencies.

This non-partisan commission of 12 is to submit a comprehensive report by December 31, 1954 and its final report by May 31, 1955. It will be somewhat similar to the former Hoover commission which previously has recommended government reorganizations but will have broader powers to study all phases of the federal government.

View Intergovernmental Relations

The Commission on Intergovernmental Relations, according to the Senate report will be authorized to:

1. Make a broad study of the proper role of the federal government in relation to the states and their political subdivisions in the entire field of intergovernmental relations with a view to defining these relations, allocating functions to their proper jurisdiction, and adjusting intergovernmental fiscal relations so that each level of government discharges the functions which belong within its jurisdiction.

2. Study and investigate all of the present activities in which federal aid is extended to states and local governments, the interrelationships of the financing of this aid, the sources of financing of governmental programs and problems in the field of intergovernmental tax immunities.

3. Determine and report whether there is justification for federal aid in the various fields in which such aid is extended; whether there are other fields in which such aid should be extended; whether federal control with respect to these activities should be limited, and, if so, to what extent; whether federal aid should be limited

to cases of need; and all other matters incident to such federal aid, including the ability of the federal government and the states to finance activities of this nature.

This non-partisan commission of 25 members would include representation from federal, state and local governments, as well as qualified representatives of industry, labor, agriculture, taxpayers' associations and others. It will be required to report by March 1, 1954.

Chamber of Commerce Support

The national Chamber of Commerce, which supported the legislation for the commission, on June 10 held a National Conference on Federal-State Relations. Business leaders from all parts of the country, including representatives of The Associated General Contractors of America, were invited to participate and to work for a wider understanding of the importance of the work which the commissions will carry out. All state and local chambers of commerce and other organizations are being encouraged to form citizens committees which can help study the problems.

To illustrate the problem it has been pointed out that in 1932 the federal government received about one-fourth of the taxes collected in the nation, and the state and local governments received three-fourths. By 1947 the situation had been reversed so that the federal government was getting three-fourths of the tax money. In 1952, more than 40 programs of federal grants to states totaled \$2.3 billion, amounting to 24% of all the money collected by the states.

After the commissions have been established, their work will include a complete restudy of all federal-aid programs relating to construction.

Rural Electrification Administration borrowers have been told by REA: "Experience has revealed that there is little, if anything, to be gained in letting separate contracts for each major part of the construction. The slight savings that may be obtained from separate contracts for major items such as electrical work, heating, plumbing and site development work will usually not offset the additional work involved in supervision and coordination of the work. Therefore, it is strongly recommended that one contract be let for the complete job."

Prepare Plans to Check Booms and Busts

• President's Economic Adviser Outlines Ideas for Depressions

» PLANS are now taking shape, although they are not yet in detail, for the President to establish an "economic general staff" which would help the government prepare for the dangers of booms and depressions in about the same way a military general staff prepares for eventualities in a war.

Dr. Arthur F. Burns, now the President's economic adviser, is expected to become the economic chief of staff when the President's proposal for reviving the Council of Economic Advisers clears Congress. He is expected to become chairman of the council which would make a continuing study of economic conditions.

A second group, known as the Advisory Board of Economic Growth and Stability, is also likely to be established. This group, also headed by Dr. Burns and composed of Cabinet members or their economic aides, would have more to do with making recommendations for government actions.

While the President has said little about his plans, Dr. Burns' ideas have been outlined in a recent annual report of the National Bureau of Economic Research, Inc., of which he was formerly research director, and for which he wrote an article on "Business Cycle Research and the Needs of Today."

Administration Plans Action

In his paper Dr. Burns did not reveal what may be the economic outlook. In fact he stated: "The gift of prophecy has never loomed large in the endowment of economists."

But he has made it clear that the new Administration is not planning to sit on its hands in the event of a recession. He has quoted from the President's campaign statement that "never again shall we allow a depression in the United States," and that if there are signs of a depression the full forces of business and government "will be mobilized" to avert large-scale unemployment.

For the immediate future, Dr. Burns said that the only things reasonably certain are that the economic system will continue to generate ups and downs and "that the government will at some stage intervene to check their course."

He does not feel that government action can be precise enough "to assure virtually full employment and a virtually stable price level at all times." But he does believe that the government can moderate a slump "so that our children will be spared the sort of economic collapse that blighted lives in the middle '30s."

Public Works Considerations

Dr. Burns does not believe that big federal projects are the best answer to providing employment quickly. He does not appear to favor the return of a WPA, but leans to the view that federal grants to state and local governments for highway, school, and other public projects would be a quicker way to put people to work and to foster development of a wide range of industries.

His plans for alleviating the effects of a recession would be to cut taxes to release money for spending; to lower interest rates to make money more readily available; to increase unemployment benefits to bolster income; to step up local public works to create local activity; to increase domestic and foreign aid programs; and to lower taxes to encourage business activity.

Economic General Staff

As to a government economic general staff, he has written:

"Perhaps before many years pass, an economic general staff will emerge within the government and take on some of the characteristics of military general staffs.

"Just as the military often find it helpful to draft plans for resisting different potential aggressors, each or a combination of whom may strike at this point or at that, so an economic staff may in the future find it prudent to work concurrently on plans for meeting a great variety of economic troubles that we loosely call booms or depressions.

"And just as the military staff tends to concentrate on the immediate danger points, but without neglecting the lessons of past campaigns and battles, so the economic staff may come to combine historical and theoretical research on business cycles with the devising of policies to meet emerging conditions."

10 LEADS

TO BETTER FASTER RESULTS

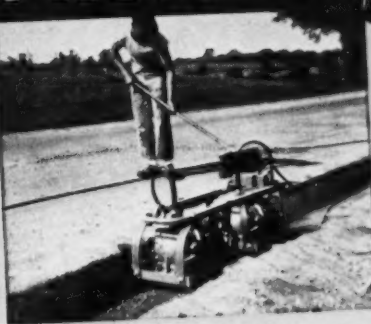
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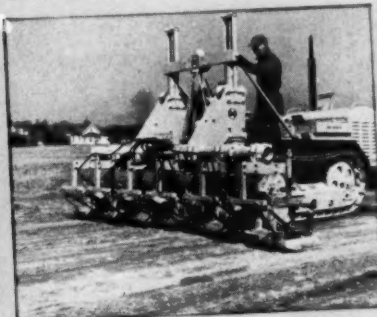
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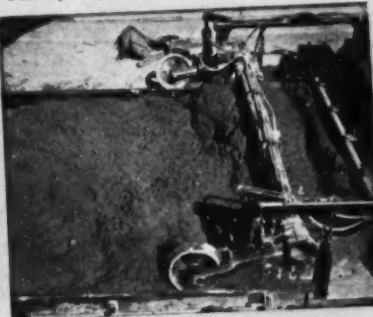
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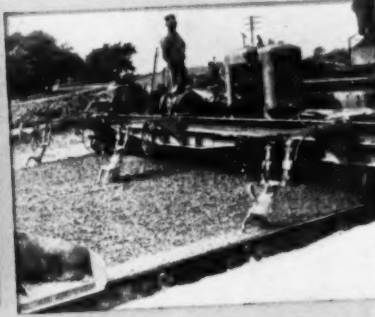
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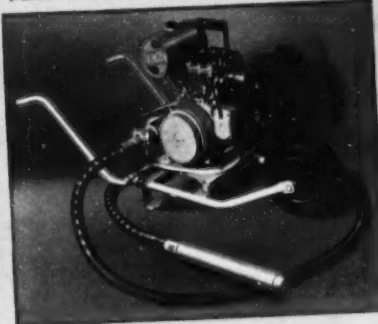
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SIDE FORM VIBRATION. Works equally well mounted ahead of finisher screed or in rear of spreader. Controlled by finisher operator, it saves better part of two men's labor. Will not snag forms or reinforcements, or penetrate into sub-grade.

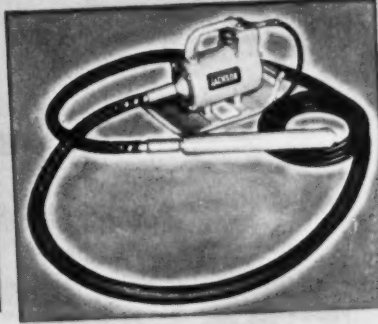


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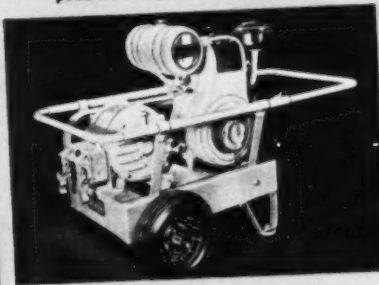
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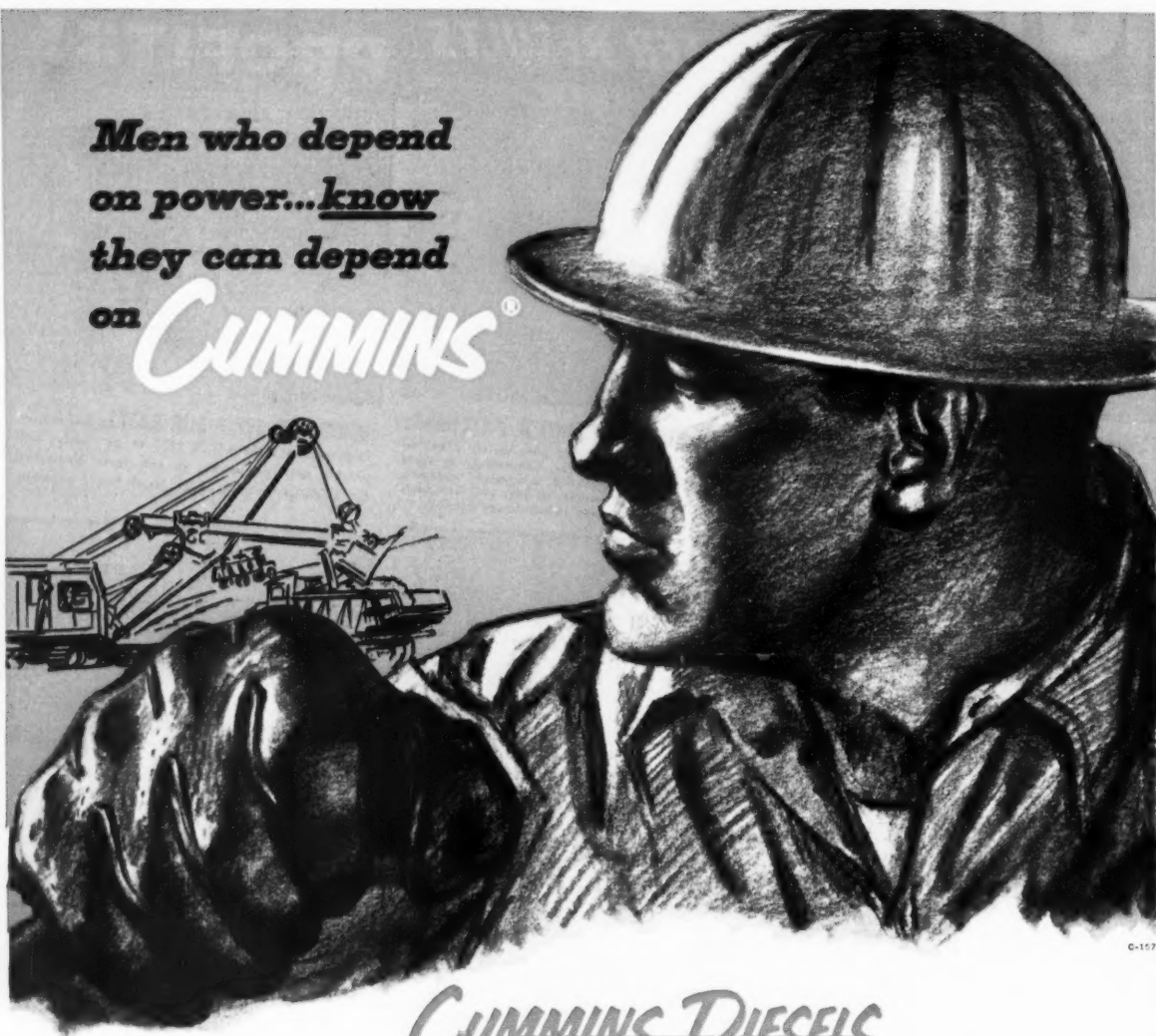
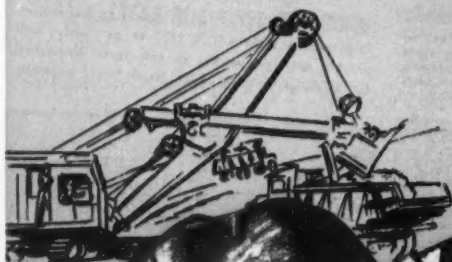
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» CAPACITY of general contractors to execute an expanded highway program promptly and efficiently, and recommendations of The Associated General Contractors of America for more federal aid returns to states for highway purposes, administration of the program through present channels, long-range planning and continued support of the contract method principle were outlined last month to the subcommittee on roads of the House Public Works Committee.

The two A.G.C. representatives also: recognized the great highway needs and supported American Association of State Highway Officials recommendations; stated prime use of federally-collected user taxes should be for highways; pointed out the necessity and economy of investments in

A.G.C. Asks Long-Range Planning, More Aid to States for Highways

- Contractors' Capacity, Investment Value Noted
- Action Seen Next Year as Hearings Near Close

highways; advocated federal aid for right-of-way, and authorizations to make possible continuing planning and construction programs.

The statements, which are carried in full below, were presented by P. M. Thornton, Hancock, Mich., chairman of the Highway Contractors' Division, and George C. Koss, Des Moines, former division chairman and co-chairman of the A.G.C.-A.A.S.H.O. Joint Cooperative Committee.

Hearings were slated to end the middle of this month and it was generally expected that no legislative action would result until the next session of Congress when legislators will have had time to digest the vast store of information accumulated from witnesses, plus other findings to be made by commissions appointed by the President to study fiscal relationships of the federal and state governments and federal aid (see page 29).

Statement Presented by P. M. Thornton

Chairman, A.G.C. Highway Contractors' Division

» I AM PRESIDENT of the Thornton Construction Co., of Hancock, Michigan, which engages in highway construction exclusively. This year I am chairman of the Highway Contractors' Division of The Associated General Contractors of America, and I appear before you in that capacity.

Mr. Koss, who will follow me, and I, are here to represent the leading highway contractors of the nation; to report to you the policies which

the association has adopted with respect to highway construction; to tell you of the steps we are taking in co-operation with federal and state highway departments to increase the efficiency of highway construction; to assure you that funds invested in highway construction are an economical investment, and to answer your questions regarding such construction.

Of the more than 6,300 general contracting firms which are members of the A.G.C., more than 2,700 com-

panies, either exclusively or as a part of their work, construct highways, roads, streets, alleys, sidewalks, parkways, airports, athletic fields, bridges, sewerage and water supply systems, and perform other work incidental to highway and street improvement.

More than 2,600 members engage in what we refer to as heavy engineering construction, which would include work related to highway construction such as major bridges, tunnels, viaducts, drainage, and other projects.

Highway Financing

The best way for me to start is to read to you the resolution which was adopted by the recent annual conven-

- Contractors recognize tremendous highway needs and support A. A. S. H. O. recommendations.
- Prime use of federally-collected users' taxes should be for highway purposes.
- Government has "substantial interest" in highway development.
- Investments in highways are both necessary and economical.
- "Industry has capacity to execute an expanded highway construction program promptly and with increasing efficiency."

tion of the A.G.C., which is as follows: "The volume of traffic on the nation's highways and the hazards of travel have increased at a greater rate than the construction of safe, adequate facilities. Highway needs extend beyond state borders and have

(Continued on page 35)



At highway hearing: Mr. Thornton, A.G.C. Highway Division chairman; Rep. George A. Dondero (R-Mich.), chairman, House Public Works Committee; Mr. Koss, A.G.C.-A.A.S.H.O. Joint Committee co-chairman; Rep. J. Harry McGregor (R-Ohio), chairman, roads subcommittee; and Hal H. Hale, executive secretary, A.A.S.H.O.

Rolling Steel

DOORS

Manually, Mechanically, or Power Operated

A good, quick opening, quick closing power operated rolling steel door meets present-day requirements more fully than any other type of door. The vertical action of its roll-up steel curtain requires no usable space either inside or outside the opening . . . there are no overhead tracks or other obstruction to interfere with crane operations or limit headroom adjacent to the door opening. No other type of door offers these inherent advantages of space economy and compactness in operation . . . in addition, rolling steel doors are permanent—their all-metal construction assures you a lifetime of trouble-free service, and provides maximum security against intrusion and fire. When you select a rolling steel door, check specifications carefully . . . you will find many extra-value features in Mahon doors—for instance, the galvanized steel material, from which the interlocking curtain slats are rolled, is chemically cleaned, phosphated, and treated with a chromic acid solution to provide paint bond, and, the protective coating of synthetic enamel is baked on at 350° F. prior to roll-forming. You will find other material and design features in Mahon doors that add up to a greater overall dollar value. See Sweet's Files for complete information including Specifications, or write for Catalog G-53.

THE R. C. MAHON COMPANY

Detroit 34, Michigan • Chicago 4, Illinois • Representatives in all Principal Cities
Manufacturers of Rolling Steel Doors, Grilles, and Automatic Closing Underwriters' Labeled Rolling Steel Doors and Fire Shutters; Insulated Metal Walls and Wall Panels; Steel Deck for Roofs, Partitions, and Permanent Concrete Floor Forms.



MAHON
CHAIN-GEAR
OPERATOR

MAHON STANDARD
POWER OPERATOR 920-P



ROLLING STEEL DOORS, SHUTTERS AND GRILLES TO MEET EVERY REQUIREMENT

Four Mahon Power Operated Rolling Steel Doors installed in truck openings of an enclosed loading dock at Detroit Hardware Company's new plant.

MAHON

THE CONSTRUCTOR, JULY 1953

(Continued from page 33)

a direct effect on interstate commerce.

"In view of the fact that the federal government returns for highway construction use only approximately one-quarter of the funds collected in excise and gasoline taxes, The Associated General Contractors of America, at its 34th annual convention in Miami, Florida, March 23-26, 1953, therefore strongly recommends to the President of the United States, to the Congress, and to the states that:

"1. The federal government assume its proper responsibility for the nation's highway needs by increasing federal-aid returns to the states of not less than the total amount of funds collected in taxes from highway users.

"2. The federal-aid highway construction program be administered through present channels.

"3. There should be no diversion to other purposes of tax funds collected from highway users by any unit of government."

Discussion of Resolution

In discussing our resolution, I would like to point out that the association has consistently taken the position that it is not the function of highway contractors to say how much construction there should be. We believe that Commissioner of Public Roads duPont and representatives of the American Association of State Highway Officials have previously demonstrated beyond doubt that there should be a greater volume of highway construction. We believe that their estimates of the needs are sound, and our association supports them.

We have taken no position on whether or not the federal government should continue to collect gasoline and excise taxes from highway users, nor how much those taxes should be. Undoubtedly some states which receive less in federal-aid than is collected within their borders favor elimination of the federal taxes, while those who receive more in federal-aid would like them continued. There are those, also, who do fear that if the federal taxes are eliminated, many of the states will not increase their gasoline or other taxes sufficiently to bring in required revenues. We appreciate, however, that in a matter such as this the Congress will view the question from the standpoint of the over-all national welfare and act accordingly.

We do believe strongly, however, and our association has adopted such

resolutions a number of times in the past, that there should be no diversion of funds collected from highway users to other purposes by any unit of government.

So far 24 states, by constitutional amendments, require that gasoline tax funds be used exclusively for highway construction, maintenance, or administrative purposes. Those states are:

| | | |
|------------|---------------|---------------|
| Alabama | Kentucky | North Dakota |
| Arizona | Maine | Ohio |
| California | Massachusetts | Oregon |
| Colorado | Michigan | Pennsylvania |
| Georgia | Minnesota | South Dakota |
| Idaho | Missouri | Texas |
| Iowa | Nevada | Washington |
| Kansas | New Hampshire | West Virginia |

In view of the fact that the federal government collects in the neighborhood of \$2 billion annually in gasoline and excise taxes on highway users while it returns less than \$600 million annually to the states in federal-aid funds, we also believe strongly that so long as there are such federal taxes, and so long as highway construction needs are so tremendous, there should be no diversion of federal funds.

Highway Construction Costs

Turning now to highway construction costs, we believe that now and in the foreseeable future government agencies will receive full value for their investments in construction, and that these costs will be in line with the costs of other goods and services.

Highway construction costs are in line with other costs. When the three indexes for 1952 are compared using the 1947 through 1949 averages as a base of 100 the Bureau of Public Roads composite mile cost index is 112.8; the consumers price index for all items is 114; and the wholesale commodity price index for all commodities is 112. Therefore, highway construction costs are in line with the costs of other services and commodities.

The rights-of-way for modern highways, particularly for thruways, now have to be wider than ever before, and the land close to or in cities where it is expensive.

It has become common now, particularly in cities, for the cost of the land to be several times the actual construction cost. I cite an example in my state with which I am familiar. The cost of acquiring the property for widening three miles of Woodward Avenue in Detroit was more than \$9.8 million out of a total cost of approximately \$11 million. In this case the

land cost was about eight times the \$1.2 million cost of the construction.

Therefore you can expect in future highway construction programs that the cost of land and the cost of demolition and moving structures will increase as highway standards are increased. You can also expect that there will be more bridges, underpasses, and other necessary structures.

Effects of Competition

We know that greater efficiency in highway construction is being brought about by the force of competition between contractors, through the constant improvement of the methods we use, through improvements in machinery and equipment and through the cooperative work being done by our association nationally and by our chapters locally with their state highway departments in improving design, specifications, contract documents, administrative procedures and other matters.

We believe that competition in the construction industry is one of the strongest forces constantly driving us to seek means for greater efficiency. While it may seem paradoxical, it is a fact that during recent years when the industry has been putting in place a greater volume of construction than ever before, there has been the keenest of competition. This year competition has been even keener than in the past. We foresee that it will continue strong in the future.

Many Bids Per Project

Records of the Bureau of Public Roads show that the average number of bids on federal-aid projects nationwide during the past seven years has been as follows:

| Year | Bids Per Project |
|------|------------------|
| 1946 | 3.9 |
| 1947 | 3.8 |
| 1948 | 4.2 |
| 1949 | 6.3 |
| 1950 | 6.0 |
| 1951 | 4.5 |
| 1952 | 5.0 |

Recently it has been common for state highway departments to receive ten or more bids on a project.

There have not only been many bids, but many of them are now below the engineers' estimates. For example, on one project in Wenatchee National Forest for which bids were opened in April, there were 13 bidders. Eight of the 13 bids were below the engineer's estimate. The low bid

was 26% less at \$133,209. On another project in the Lewis and Clark National Forest in Montana ten of the 15 bids were below the engineer's estimate of \$247,860, with the lowest \$177,298.

Capacity for Greater Construction

As regards the capacity of the construction industry to execute promptly and economically an expanded highway construction program: this subject has been discussed by highway contractors throughout the country and it is our firm belief that with the proper planning by highway officials the industry's capacity will be more than ample.

There may be occasions when there may be shortages of manpower or materials, but we believe that these will be temporary and local in character.

Rate of Contract Construction

We would like to point out that during the past seven years, from 1946 through 1952, 98.9 per cent of the federal-aid highway construction program has been executed by contract. Also, during that time an increasing number of states have taken advantage of the economies possible in carrying out maintenance projects by contract.

We can assure you that the construction industry has the capacity to execute a substantially expanded highway construction program; that it can do this with increasing efficiency, and that there will be adequate competition to guarantee favorable prices.

Conclusion

In conclusion, I would like to repeat that we recognize the tremendous need for an expanded highway construction program, and we support the recommendations of the American Association of State Highway Officials.

We believe that so long as the federal government collects taxes from highway users, the prime use of these funds should be for highway purposes. We believe further, that regardless of the tax question, that the federal government has a real and substantial interest in highway development.

We believe that investments in highway construction are necessary and economical investments.

And we can assure you that the construction industry has the capacity to execute an expanded highway construction program promptly and with increasing efficiency.

Statement Presented by George C. Koss

Co-Chairman, A.G.C.-A.A.S.H.O. Joint Cooperative Committee

» I AM PRESIDENT of the Koss Construction Co., of Des Moines, Iowa, which specializes in concrete paving of highways and airports in the mid-western area. I am and have been since 1949 co-chairman of the Joint Cooperative Committee of the American Association of State Highway Officials and The Associated General Contractors of America.

My purpose today will be to supplement the statement of Mr. Thornton; to describe to you briefly some of the steps which are being taken through the cooperative committee by the A.G.C., the Bureau of Public Roads, and by state highway departments to seek greater efficiency in highway construction, and to bring to you the recommendations of the A.G.C.

There is no need of my repeating what Mr. Thornton already has said, but I would like to emphasize that his statement accurately reflects the views of the majority of highway contractors throughout the nation.

While you are considering the problem of what Congress should do about the tremendous highway needs, I believe that it is important that you have assurance from the highway contracting industry that we can carry out an expanding highway construction program on schedule and with increasing efficiency.

Competition Key to Efficiency

Very briefly I would like to outline to you some of the forces and some of the actions which are leading toward greater efficiency.

Each contractor is forced by competition to train his men constantly for more efficient work and more productive operations. We are forced to seek new methods. In order to be low bidder we must work with the most modern and efficient machinery. I could discuss this subject alone with you for many hours, but I believe that you can readily understand how the force of competition drives contractors toward more efficiency every day.

There is no need to go into detail here, but a vast amount of research is being done through the Highway Research Board of the National Research Council on a wide variety of subjects. All of these in time lead to improved highway design and construction. Machinery and materials

Contractors Recommend:

1. Highway users' taxes collected by federal government should be returned to states "in federal aid for highway purposes."
2. Program should be administered through present channels.
3. Federal aid should be available to states for right-of-way.
4. That Congress continue to support principle of contract method.
5. Long-range planning, authorizations and continuing construction programs for efficiency and economy.

manufacturers also are constantly engaged in research, as are universities and other groups.

Cooperative Action

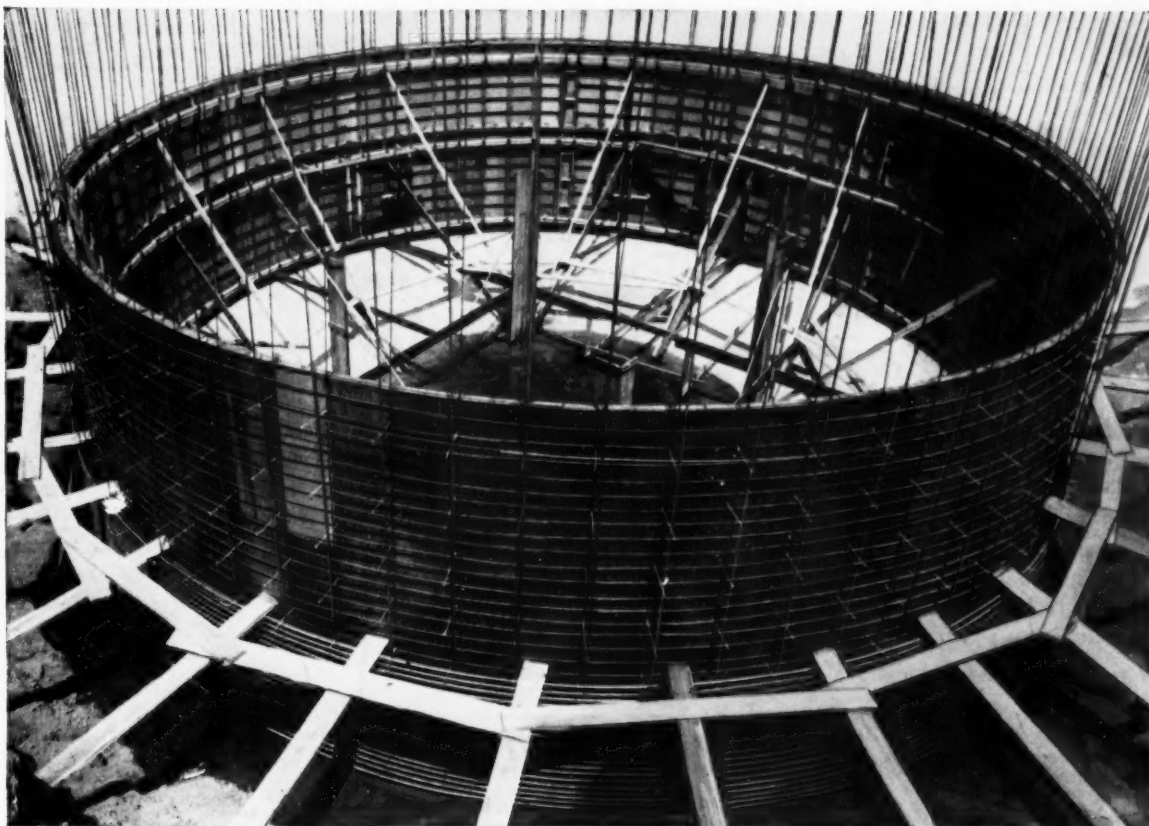
Much also is being accomplished toward improved highway construction in the cooperation of highway contractors working through The Associated General Contractors of America and its chapters with the American Association of State Highway Officials, individual state highway departments and the Bureau of Public Roads.

In connection with regional and national meetings of state highway officials, and national meetings of A.G.C., several meetings a year are held which are attended by federal and state highway officials and highway contractors. At these conferences all problems relating to highway construction are discussed and many positive recommendations for improvements in construction methods, specifications, design, and administrative procedures are made, all of which lead to increased efficiency and economies.

In addition, many chapters of the A.G.C. work closely through special committees with their individual state highway departments. Some of these committees hold regular meetings monthly, or every few months. Others do not have schedules but meet when appropriate. At such meetings highway problems of the particular states are discussed and solutions worked out.

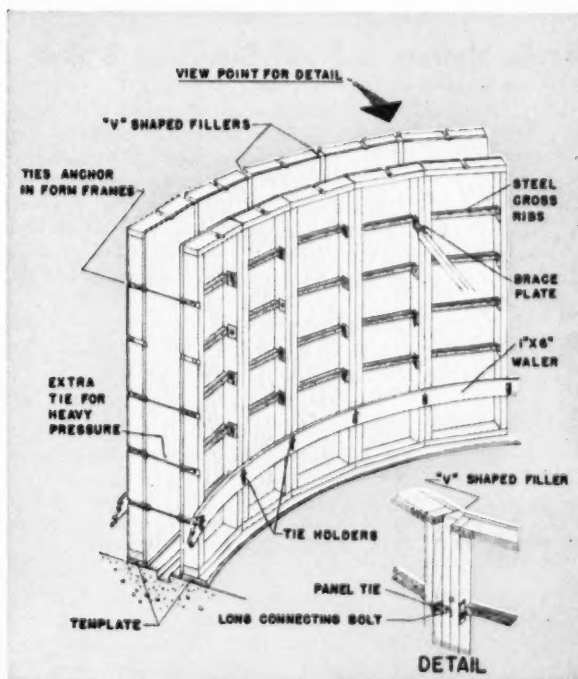
At three meetings of the national committee held this year such subjects were discussed as encouraging

(Continued on page 41)



Setting Up Forms for Sewage Disposal Tank, St. Louis County, G. L. Tarlton Co., G. C.

SYMONS FORMS for CURVED WALLS



Symons Rib panels are used with V-shaped fillers at each joint. Sturdy wedge-bolts secure the three pieces together and also hold the ties in place. Curved walers (see photo) or 1" x 6" flat walers (see perspective) may be used for alignment.

Contractors report savings of \$5000.00 on forming costs of Sewage Disposal Plants. Engineers are well pleased with the smooth finished walls.

Symons offers a complete engineering service to solve your toughest forming problems. Send us the plans for your next job and a complete layout and cost sheet will be furnished without charge.



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Please send me the items checked:

- ☐ Information regarding Symons Panel Forms
- ☐ Information regarding Column Clamps, Shores, Bar Ties

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Address

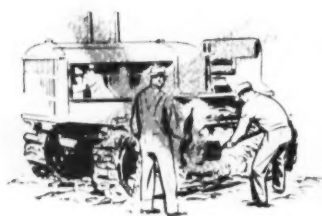
City Zone State

Advance design features make Allis-Chalmers Tractors performance leaders

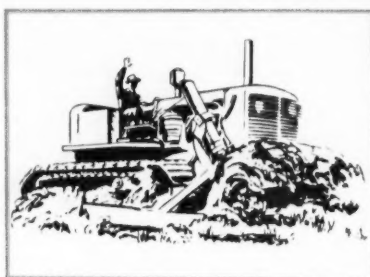
It takes truly modern equipment to keep pace with today's stepped-up demands — and do it at an operating cost which insures fair and consistent profits. The line of Allis-Chalmers crawler tractors has been designed and built completely new since the war, with the kind of advanced engineering that delivers big-capacity performance at a minimum of maintenance expense.

This forward progress is a continuing program. Additional improvements are constantly being incorporated into the HD-5, HD-9, HD-15 and HD-20 tractors. If you are in the market or just interested, see your Allis-Chalmers dealer for all the inside facts that have proved so popular with owners as well as operators and mechanics.

1000-hour Lubrication



Daily Lubrication



On all Allis-Chalmers tractors, you can operate six months on a 40-hour week basis with just one lubrication of truck wheels, front idlers and support rollers. Designed with positive seals and tapered roller bearings, these units are protected from dust, loose sand, soft ground, mud or water. You not only gain working time, but save labor and lubricant costs as well. And there's no costly damage from greasing neglect.

Hydraulic Steering and Self-Energizing Brakes

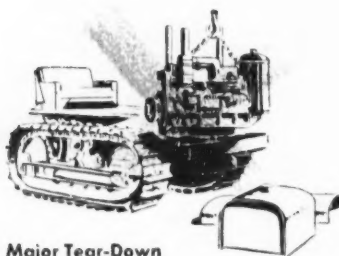


Ordinary Steering Clutches

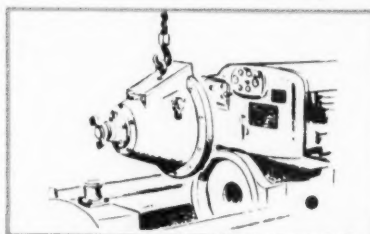


Allis-Chalmers HD-15 and HD-20 tractors are equipped with fingertip hydraulic booster steering — operator exerts only 3 to 5 lb. pressure on the controls. As a result he gets small tractor maneuverability from these 27,850 and 41,000-lb. crawlers and can concentrate on his work. All four models are equipped with self-energizing brakes. These require less pedal pressure and take hold with a firm, uniform grip for accurate control.

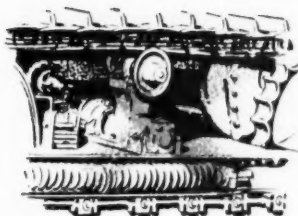
Unit Servicing



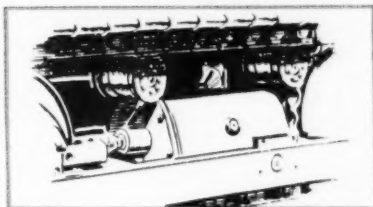
Major Tear-Down



No need to remove transmission or engine, radiator, grille, etc., when servicing or removing an Allis-Chalmers master clutch. The unit assembly principle also applies to final drive gear, transmission, steering clutches, engine and truck frame. As a result, hours of costly service and down time are saved because of Allis-Chalmers advanced design.

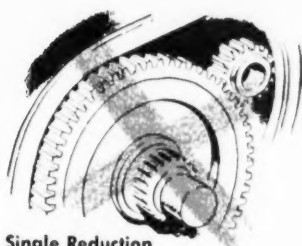


Open or Partly Shielded
Track Release Mechanism

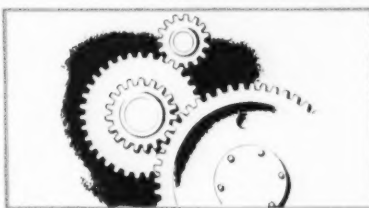


Oil Enclosed Track Release Mechanism

Operating in oil and sealed against dirt and moisture, the Allis-Chalmers track release mechanism seals out mud, ice and debris. Because it's completely sealed, the release mechanism is in working condition at all times — providing positive protection when obstacles jam into the tracks.

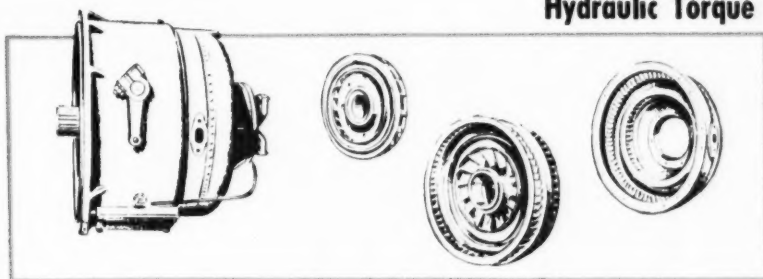


Single Reduction
Final Drive



Double Reduction Final Drive

With smaller gears and shorter shafts, double reduction final drives provide better bearing and gear alignment. The "live" axle permits smaller, more serviceable seals. Equally important, double reduction drive provides for smooth, clean bottom construction and the extra ground clearance so necessary on rough terrain.



Hydraulic Torque Converter Drive

The Allis-Chalmers HD-20 is the only crawler tractor in the industry where torque converter is standard equipment and part of the tractor's basic design. With torque converter there is greater pay load capacity because this unit automatically balances travel speed to the load — no idle horsepower, no worry about engine stalling. And with most shifting eliminated, there's far less operator fatigue.



ALLIS-CHALMERS
TRACTOR DIVISION — MILWAUKEE 1, U. S. A.

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PAYS-OFF
in a bituminous
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**EVERY FEATURE OF THE BARBER-GREENE 848 PLANT
WAS DESIGNED TO INCREASE TONNAGE PRODUCTION**

There is nothing to equal the constant, low-cost, top-capacity production of the 848 plant that provides 80 to 140 tons per hour of the finest bituminous mix.

Its portability means less moving time. Its separate components mean less set-up time. Its automatic, interlocked operation assures accuracy and means less loss due to the human element.

Its simplicity of operation and quality construction mean less down time. Its unique simple sampling means less interrupted time.

Its adaptability to all types of mix, including stabilized mixes, means more profitable production.

See your B-G Distributor for complete information on the high capacity 848 Bituminous Plant.

Barber-Greene

Aurora, Illinois, U. S. A.



(Continued from page 36)

more students to enter the engineering profession, increasing the pay of engineers in public service and freeing engineers from non-engineering work for the planning and supervision of construction programs.

Also discussed were practical means of taking greater advantage of the economies of the contract method for maintenance work.

In national and perhaps to a greater extent in the state meetings, discussions centered about practical means of improving specifications to fit the capabilities of machinery so that increased efficiency in highway construction may be attained.

Many problems of design have been worked out for the more economical execution of construction. For example, if all piers of a bridge are standardized the contractor can re-use one set of forms for all piers and thereby cut his costs. In many cases design engineers have been taken on tours to see construction machinery and crews in operation to enable them to prepare designs and specifications that will permit more efficient operations.

In many states A.G.C. chapters assist the state highway department in the public relations problems involved in highway construction, particularly the inconvenience caused the public by detours.

We do not wish to bore you with details, but we do believe that it is helpful to you to understand the forces at work in many places, the research being done and the practical means being found to constantly bring about more efficient and economical highway construction.

Highway Safety

There are others who can address you on all phases of the problem of highway safety, but we do wish to point out to you the close relationship between adequate facilities and safety on our highways. Much will have to be done in education for safe driving, but I am sure that you can easily understand that even with good driving the possibilities of accidents can be cut down by providing highways, bridges, and other facilities that are adequate for the volume of traffic passing over them.

We do not feel that it is the proper function for contractors to be the source of information on how much highway construction there should be or what methods should be used for

its financing. However, we do believe that we have some recommendations related to highway construction which we can properly make to the Congress.

A.G.C. Recommendations

Following are the recommendations made by The Associated General Contractors of America:

1. We recommend that so long as the federal government collects gasoline and excise taxes from highway users not less than the amount received be returned to the states in federal aid for highway purposes.

Mr. Thornton has already covered this point by his discussion of the resolution adopted at the latest A.G.C. convention.

2. We recommend that the federal-aid highway construction program be administered through the present channels of the Bureau of Public Roads and the state highway departments.

Medium For Uniformity

The Bureau of Public Roads serves as the medium for uniformity in policies and procedures followed by the states in administering the construction program. We believe that you can understand the confusion—and extra expense—which could be created by abolition of the bureau and by each state adopting differing and conflicting procedures.

The state highway departments serve as a similar medium for policies of local highway departments.

3. We recommend that federal-aid funds continue to be available to the states for purchase of right-of-way.

Acquire Land In Advance

As Mr. Thornton has pointed out, the cost of land has become an increasingly important part of the highway modernization program. For maximum efficiency in highway construction it is essential that the state, or other governmental unit, acquire the land in advance of construction. Hardly anything can hamper the efficiency of a contractor's operations more than a delay in the project while the right-of-way is being acquired.

4. We recommend that the Congress continue to support the long standing principle that highway construction should be undertaken by contract with the contract awarded to the lowest responsible bidder after public advertisement.

This principle has been found by experience to be the most fair, equitable, and economical for peacetime public works construction and we believe that it should be continued and encouraged.

5. Our final recommendation is that the Congress enact federal-aid highway authorization bills for periods of greater than two years, and that it encourage long-range planning of highway construction. We also recommend that there be throughout the country highway construction programs on a continuing basis.

We make these recommendations as contractors because we know that these will lead to the most economical construction. When highway contractors can foresee that there will be continuing highway programs of a known size they will be able to plan their purchases of equipment and plan the training of their workmen so that they will always be able to operate at maximum efficiency.

When there is a tremendous spurt of construction activity in an area for a short time there is an inevitable scramble for manpower, equipment and materials. That is not conducive to greatest efficiency. When the boom in the particular area breaks, most contractors then move elsewhere so that there are not enough on hand when there are future construction needs.

Therefore, we recommend that there be continuous, long-range highway construction programs so that highway contractors may organize themselves to handle the work most efficiently.

Conclusion

In conclusion, I would like to repeat that there are many forces at work and many actions being taken which are constantly leading toward improved highway construction.

We believe that with the federal government returning to the states for highway construction an amount of money no less than is collected from highway users, that with administration of the highway program continued through present channels, that with federal-aid funds continued available for acquisition of right-of-way, that with construction continued by the contract method, and that with continued long-range highway programs good progress can be made toward solution of the nation's highway problem.

Subcontractors Pushing Passage of S. 848

• Senate Committee Approves Bill Against A.G.C. Opposition

» INDICATIONS are that the strongest kind of political pressure is being exerted upon members of Congress by mechanical specialty contractor organizations, their members, and the international and local unions with which they work, for immediate passage by Congress of S. 848, which requires general contractors to name proposed subcontractors and their prices in bids on federal projects.

Without Recommendation

The Senate Judiciary Committee on June 18 ordered the bill reported favorably to the Senate. At the previous session of Congress the bill was reported without recommendation, and no further action was taken after objections were made to its consideration when it came to the floor on the Consent Calendar.

The committee report on the bill is completely one-sided in favor of the pleas made by the mechanical specialty contractors, and brushes aside

the objections of the government.

In reporting the bill the Senate Judiciary Committee made an amendment which would remove the mandatory provisions that the subcontractors list their sub-subcontractors, as the original legislation would require. As amended, the bill requires that sub-subcontractors be named only "to the extent that such information has been furnished to the contractor by the mechanical specialty contractors named . . ."

The bill has been placed on the Senate Consent Calendar and could come up for consideration the next time the calendar is called. Probabilities are that objections will be raised to its consideration on the calendar and that it will have to be brought to the floor by motion.

This legislation was thoroughly considered by The Associated General Contractors of America at the 1952 Mid-Year Board Meeting at White Sulphur Springs and again at the 34th

annual convention in Miami in March 1953. Both meetings adopted strong resolutions or motions in opposition to such legislation, but offering to settle industry problems within the industry.

A.G.C. Objections

When public hearings were held April 14 on S. 848 jointly by subcommittees of the Senate and House Judiciary Committees, three A. G. C. representatives presented testimony demonstrating how the legislation was contrary to the best interests of the government and the public. (May Constructor, Page 25.) The A.G.C. position has been summarized as:

"1. The legislation would tend to increase the cost of federal public works construction, tend to limit competition for subcontracts, and tend to increase the administrative responsibilities and costs of the government without benefit to federal agencies.

"2. The legislation would not accomplish its alleged purpose of curing improper industry practices engaged in by a few general and mechanical specialty subcontractors; would handicap smaller and growing subcontractors, and it would be impossible in many cases for general contractors to comply with its provisions.

"3. There are serious doubts that the legislation, which is discriminatory against general contractors, is constitutional.

"4. The legislation would constitute government regulation of industry practices and business relationships, problems of which should be solved within the industry."

Industry's Problems

"Members of the association believe that the best interests of the public and of each segment of the construction industry will be served when groups within the industry use their ingenuity and their knowledge of the industry to solve its problems in a fair, equitable, and unselfish manner. The association has taken action in good faith to bring about such a solution of industry problems and will continue to do so."

Earlier in June a subcommittee of the House Judiciary Committee, headed by Rep. Edgar A. Jonas (R. Ill.), reported to the full committee his bill, H. R. 1825, to make it identical with S. 848. The full committee had taken no action by the end of June. Action by the full committee would be necessary before the bill could come before the House.

Senate Votes Bill Creating Judicial Review

• Action Follows A.G.C. Stand Against Wunderlich Decision

» LEGISLATION to establish the right of judicial review of disputes arising from government contracts was passed by the Senate on June 8.

The bill, S. 24, by Senator Pat McCarran (D. Nev.) has been referred to the House Judiciary Committee which has before it an identical bill, H. R. 1839, by Chairman Chauncey W. Reed (R. Ill.). The House committee was expected to take action early in July. The bill states:

"That no provision of any contract entered into by the United States, relating to the finality or conclusiveness, in a dispute involving a question arising under such contract, of any decision of an administrative official, representative, or board, shall be pleaded as limiting judicial review of any such decision to cases in which fraud by such official, representative, or board is alleged; and any such provision shall be void with respect to any such decision which the General Accounting Office or a court, having jurisdiction, finds fraudulent, grossly erroneous, so mistaken as necessarily to imply bad faith, or not supported by

reliable, probative, and substantial evidence.

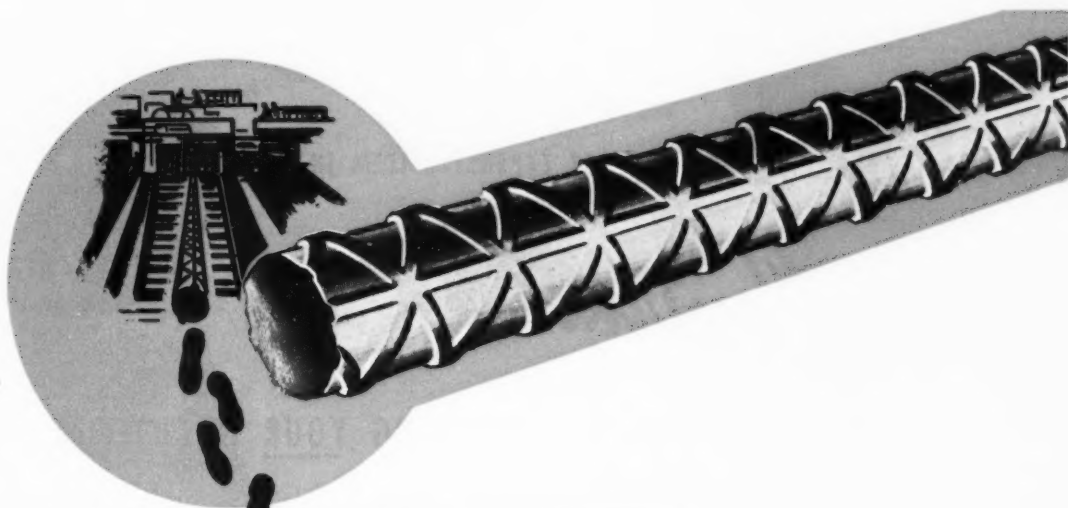
"Sec. 2. No government contract shall contain a provision making final on a question of law the decision of an administrative official, representative, or board."

The title of the bill is:

"A bill to permit review of decisions of government contracting officers involving questions of fact arising under government contracts in cases other than those in which fraud is alleged, and for other purposes."

The bill is designed to offset the effects of the United States Supreme Court in the Wunderlich case, in which the courts interpreted the disputes clause of the standard government contract form as limiting court review of decisions by contracting officers to cases involving fraud, and "by fraud we mean conscious wrongdoing, an intention to cheat or be dishonest."

The Associated General Contractors of America took the lead in recommending to Congress the need for such legislation soon after the Supreme Court ruling in November 1951.



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A FORM OF AGREEMENT BETWEEN CONTRACTOR AND OWNER

THIS AGREEMENT made the _____ day of _____, 19____, in the year nineteen hundred and _____, by and between _____ hereinafter called the Contractor, and _____ hereinafter called the Owner,

WITNESSETH, that whereas the Owner intends to erect _____

NOW, THEREFORE, the Contractor and the Owner, for the considerations hereinafter named, agree as follows:

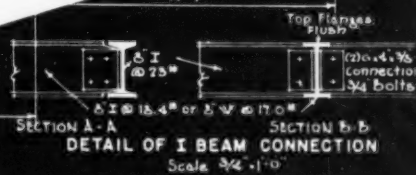
Article 1. The Work to be Done and the Documents Forming the Contract.
 The Contractor agrees to provide all the labor and materials and to do all things necessary for the proper construction and completion of the work shown and described on Drawings bearing the title _____ and numbered _____ and in Specifications bearing the same title, the pages of which are numbered _____

The said Drawings and Specifications and the General Conditions of the Contract consisting of Articles numbered one to _____ together with this Agreement, constitute the Contract: the Drawings, Specifications

Agreement between Contractor and Owner:
 Civil: Fine For Basis—Six pages—Page 1

CONTRACTS • SPECIFICATIONS

BASEMENT PLAN



- **A.G.C. Program To Improve Contracts Saves Millions in Public Funds.**Page 47
- **Cooperation—Key of Reclamation Contract Construction** Page 50
- **GSA Postpones Form 23**Page 53

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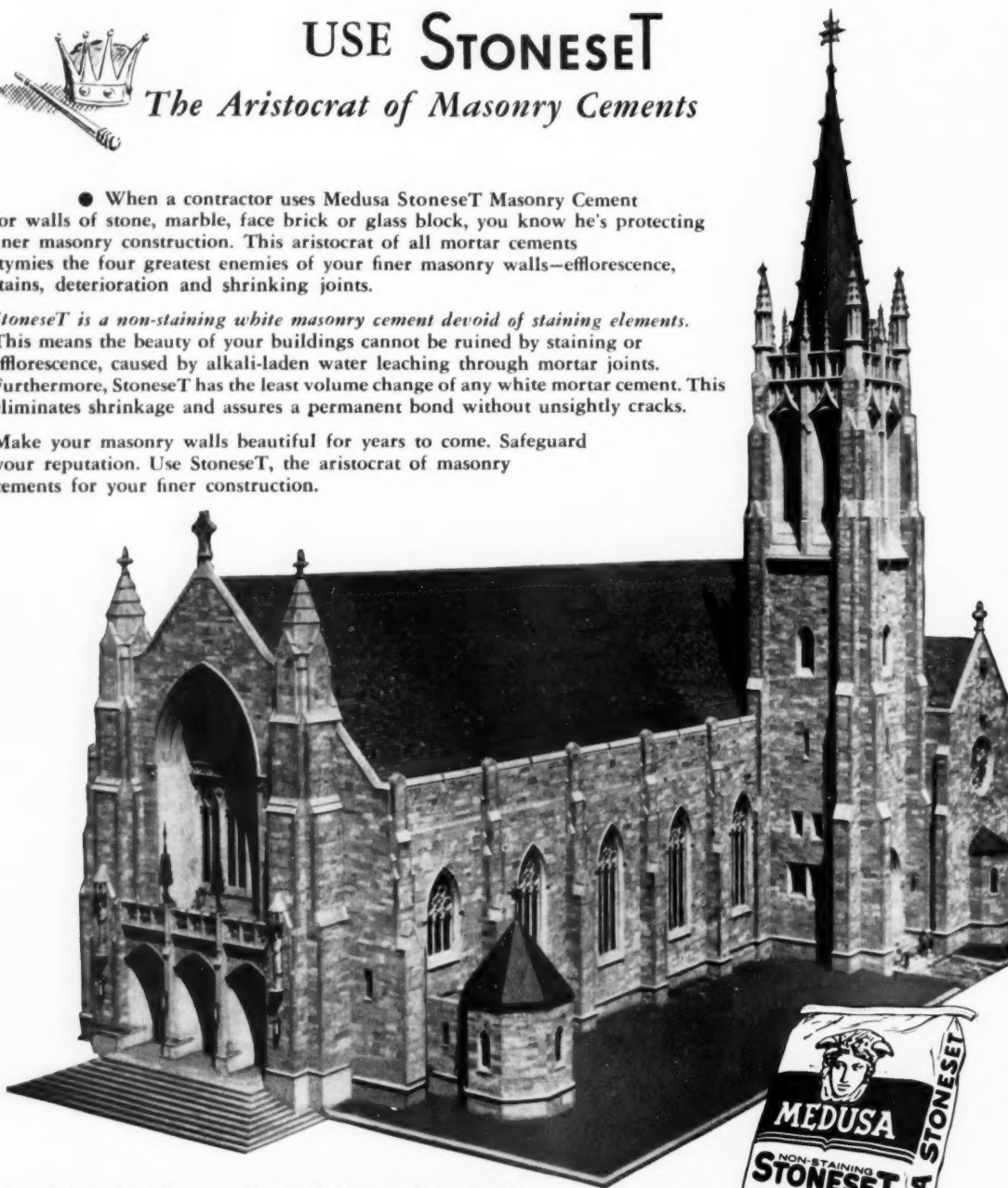
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Engineers Corps-A.G.C. Meet

Maj. Gen. S. D. Sturgis, Chief of Engineers, and other Corps of Engineers officials met June 4 with The Associated General Contractors of America's task unit on Corps of Engineers Specifications at A.G.C. headquarters in Washington.

Those attending reported constructive discussions were held.

Topics discussed included over-runs and under-runs in estimated quantities; responsibility for government-owned equipment; requirement for automatic back-up signal device; limitation of partial payment for material delivered; inequity of excavation provision, "Lines, Grades and Tolerances;" new suspension of work clause; "all or none" clause in invitation for bids; cement testing; separate payment for cement on airport work; revised form 23a issued in March 1953; act of God clause; separate bids on liquid asphalt; review of asphalt paving manual and specifications; aggregate sources; and chamber strips on internal corners.

J. A. Henderson, A.G.C. unit chairman, was to submit contractor requests for final consideration to the Corps by formal letter.

A.G.C.'s Program of Improving Specifications and Contracts Has Saved the Public Millions

» FAIR and equitable contract documents, clear and definite specifications, and efficient and uniform administrative procedures of government agencies and other purchasers of construction contribute substantially to economy in construction.

Because of this The Associated General Contractors of America throughout its history has initiated and actively participated in cooperative efforts with government agencies and other associations and the professional societies in the industry directed toward these objectives.

The greatest amount of activity along these lines has been undertaken since the end of World War II. Hundreds of practical suggestions for improvements have been developed in the many meetings which have been held by A.G.C. groups nationally and locally with government agencies or other segments of the industry.

If any accurate estimates were possible they would reveal that an impressive number of millions of dollars is saved to taxpayers and other investors in construction each year through these great improvements which have been

developed around the conference table.

The A.G.C. Committee on Contract Forms and Specifications, headed by George H. Atkinson, San Francisco, and J. A. Henderson, Winona, Minn., has a broad program of work for improvements.

There are three subcommittees on private architectural, private engineering, and standard government contract forms. Also there are task units on building, highway, Bureau of Reclamation, Army Corps of Engineers, Navy Bureau of Yards and Docks, and municipal specifications. These subcommittees and task units meet when necessary with appropriate groups to discuss matters of mutual interest.

Much work is also carried out by joint committees, nationally and locally, of A.G.C. and such groups as American Institute of Architects, American Society of Civil Engineers, American Association of State Highway Officials, National Association of State Aviation Officials, and the American Public Works Association.

In all of the work there is substantial benefit to the public.

At June 4th meeting of the A.G.C. task unit for Corps of Engineers Specifications and officials of the Corps in the A.G.C. board room in Washington—clockwise from left foreground: Gayle McFadden, chief, engineering division, Air Fields Branch; F. S. Poorman, executive assistant, Military Construction; Col. Mason Prichard, special assistant, Military Construction; Lt. Col. Manning Seltzer, Legal Division; Col. W. J. Ely, assistant for planning, engineering and contracts, Military Construction; Col. A. D. Harris, chief, Legal Division; E. B. Slichter, chief, engineering division, Civil Works; Brig. Gen. C. H. Chorpene, Assistant Chief of Engineers, Civil Works; Maj. Gen. S. D. Sturgis, Chief of Engineers; J. A. Henderson, United Construction Co., Winona, Minn., chairman of the A.G.C. unit; J. M. Sprouse, manager, A.G.C. Heavy Division; J. D. Marshall, A.G.C. executive director; Morris E. DeWitt, Porter-DeWitt Construction Co., Poplar Bluff, Mo.; William H. DeButts, C. F. Lytle Co., Sioux City, Iowa; R. A. Moyer, Chas. H. Tompkins Co., Washington, D. C.; N. K. Dickerson, Dickerson, Inc., Monroe, N. C.; B. E. Rhoads, Dravo Corp., Pittsburgh, Pa.; George Otterson, Concrete Control Branch, and Russell Trites, Structural Branch, Civil Works, both of the Corps of Engineers.



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- Stability, Safety and better utilization of power with the 4-wheel Euclid tractor.
- Independent control of all Scraper operations.
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- 10-speed transmission . . . 28 m.p.h. with full payload.
- Struck capacity 15.5 cu. yds. . . . 21 cu. yds. heaped at 1:1 . . . 18 cu. yds. at 3:1 slope . . . 275 h.p. engine .

The advanced design of Euclid Lever-Type Scrapers offers many profit-making features not available in any other scraper. Because of their fast, easy loading, their high job availability and their low maintenance cost, "Euc" Scrapers have been the choice of many leading contractors...now, they are even better in production and performance!

Euclid lever action design sets a completely new standard for scrapers in long life, trouble-free performance and profitable production!

Outperforms all other scrapers of comparable size!

No more down time due to broken cables!

Lever action, an exclusive Euclid development, is the most important improvement in Scraper design and performance in many years. Hydraulic jacks, each interchangeable with the other, operate levers that actuate bowl and apron lift and the positive roll-out ejector.

There are no cables to break . . . there is only one 12' length of cable, used for the apron lift, on the scraper. There is no down time or lost time due to complicated sheaves, pulleys and cable connections. There's no danger of damage or delay resulting from broken cables during loading, on the haul road or fill.

SIMPLIFIED HYDRAULIC SYSTEM All suction lines and complicated connections are eliminated by mounting the large capacity pump in the supply tank. The compact assembly of tank, control valve and internally mounted pump is readily accessible and easy to service.

LEVER ACTION Bowl, apron and ejector are independently controlled by lever action with hydraulic jacks. Only 12' of cable are used! Euclid "years ahead" design assures fast, positive action of all scraper operations . . . lower maintenance cost and more profit per yard.

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REVERSIBLE CUTTING BLADES Cutting blade consists of four identical reversible sections. This design provides long service life and permits various blade arrangements for most efficient loading in all kinds of material.

SPEED AND STABILITY Four wheel tractor with 10-speed transmission permits faster average travel speeds . . . has positive steering control that results in greater safety and stability . . . better traction on grades because of favorable transfer of weight to drive wheels. The 10-speed transmission permits maximum use of power provided by the 275 h.p. engine . . . top speed loaded is 28 m.p.h.

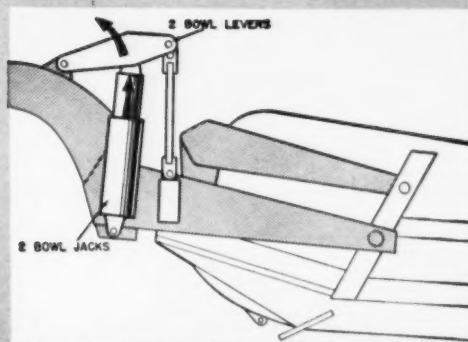
ASK YOUR EUCLID DISTRIBUTOR for information and performance data on this new Euclid Lever-Type Scraper. A descriptive catalog folder, Form A 502, is yours for the asking.

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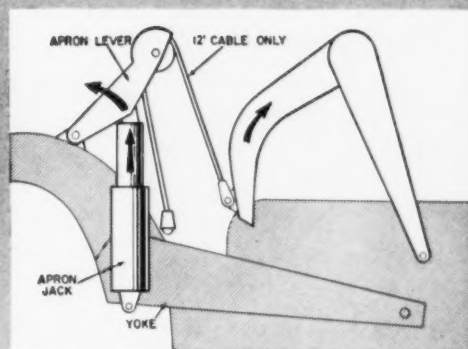
CLEVELAND 17, OHIO

CABLE ADDRESS: YUKLID

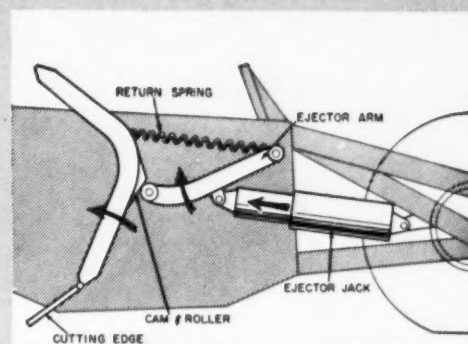
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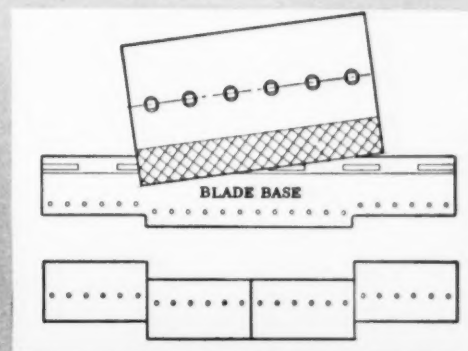
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Cooperation—The Keynote of Reclamation Contract Construction

By Grant Bloodgood

Chief Construction Engineer, Bureau of Reclamation, Denver, Colorado

» A FENCE used to exist between contractors and engineers, a barrier marking a line of separation.

"Used to exist," I carefully say. By concerted and joint effort during recent years, The Associated General Contractors and the Bureau of Reclamation have done much to eradicate their differences—they "dynamited the fence," as one man put it.

The A.G.C.-Reclamation cooperative effort began in 1945—the year that the Bureau undertook its greatly expanded postwar program of more power production and more land irrigation than in any single year in its previous 43-year history of developing the arid West. To Bureau engineers the unprecedented Reclamation program called for the challenging task of building durable structures speedily and at minimum cost. To the construction industry the postwar era brought spiraling labor, material, and operating costs and equipment shortages. To fulfill Bureau objectives of speed, quality, and economy the contractors on Reclamation construction had to have clear and definite requirements in their contracts. It became necessary for specifications and drawings to be modified and streamlined.

First Meeting Set Up

It was apparent to Bureau engineers and to the contractors as well that joint resolution of mutual problems was necessary to meet the pace

A.G.C. Task Unit

The A.G.C. Task Unit on Bureau of Reclamation Specifications is one of six such units maintained by the association. Substantial progress has been also through cooperative work of the task units with the Corps of Engineers and Bureau of Yards and Docks. Work has been started by another unit which will work closely with the American Municipal Association on development of a standard municipal form of contract. Work of these units have been and will be reported in the future in *THE CONSTRUCTOR*.

and scope of Reclamation construction. The "fence" had to go. And go it did.

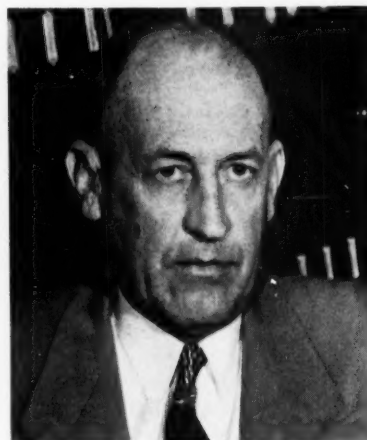
Joint action began with a Reclamation-A.G.C. meeting held in the office of Reclamation Commissioner H. W. Bashore in Washington in December 1945. The A.G.C. representatives, including Messrs. H. E. Foreman and J. D. Marshall, were headed by the late Oscar B. Coblenz, then A.G.C. President. The A.G.C. representatives were then invited to Denver by Chief Engineer W. R. Young and Chief Construction Engineer Ralph Lowry to discuss various problems. Periodic and annual conferences with A.G.C. "Task Units" in Denver followed. Later Task Units were headed by G. H. Atkinson and G. C. Looz. Latest Chairman of the Task Unit is W. H. De Butts.

The mutual objectives as stated in the original agenda were:

1. To cooperate in effecting lower costs for Reclamation construction work
2. To discuss policy regarding the performance of such work, which would lead to reduced costs
3. To examine specifications requirements that could be revised to improve contract procedure
4. To effect such changes as would produce maximum economy by the "contract method" and which would pass savings on to the water user or ultimate consumer

Objectives Met Successfully

Many important modifications and changes in specifications and contract administration procedures resulted in accord with these objectives. The attitude of both Task Unit members and Reclamation representatives throughout the various meetings was always impersonal and constructive. Discussions were directed toward eliminating past difficulties and minimizing future difficulties. In considering individual problems or complaints, the Task Unit did not presume that the contractor was always right, and after discussions, many of the complaints were withdrawn. Regardless of whether problems or complaints were resolved, alleviated, or denied, they were given



Mr. Grant Bloodgood

careful consideration and this contributed in large part toward a better understanding.

Specifications Improvements Made

Reclamation undertook a continuous program to reduce excess verbiage in its specifications and to eliminate ambiguous statements subject to arbitrary interpretation. Specifications were revised to present requirements in a more clear, concise, and readable manner, and specifications modifications were particularly aimed at reducing or eliminating contingency costs in bid prices. Specifications were continually modified to keep abreast of new trends and to encourage use of new construction techniques and equipment.

It is now Bureau policy to include all available factual information and preconstruction data in its specifications. Included are such data as the records of test pits and borings; stream hydrographs; right-of-way limits; availability of electric power; locations of borrow areas, sand, and gravel sources; and other pertinent information on the work which would be helpful to the bidder. For example, under the Materials Control Plan bidders were informed in the specifications for each job amounts of material allocations and the priorities available for that job. Also, where indemnity bonds are required for work on railroad right of way, the amounts and types of bonds are described.

Dimensional tolerances and surface finish requirements for concrete and form work are now definitely speci-

fied. These tolerances and finishes are not dependent upon individual opinion of the field inspector. These provisions differentiate the local variations of surface finish such as waviness, roughness, abrupt intrusions or offsets (finish) from general deviations (tolerances) as related to shape, dimensions, and departure from alignment or from the plumb or level.

Concrete Tolerances Tabulated

Concrete tolerances are tabulated in the specifications for the various features and dimensions of concrete canal lining, canal-type structures, power plants, dams, and appurtenant works and for placement of reinforcement steel. The contractor is responsible for setting and maintaining the forms to insure completed work within the tolerance limits. The Bureau checks the form work before concrete is placed, and the contractor is advised in cases where the finished work may exceed the permissible limits as a result of faulty form work. This check of form work is considered necessary as later correction of concrete work is costly, and, in most cases, unsatisfactory. It has often been suggested that the tolerances for the setting of form work be specified. The usual suggestion is one-half of the stated tolerance for the finished concrete. Our experience does not indicate that this is advisable. By setting up form tolerances in the specifications we enter too far into the contractor's areas of responsibility for methods of providing form work that will result in acceptable finished concrete. Whenever possible, the end results only are specified.

Concrete surface finishes are divided into classes in accordance with the quality required and the function performed by the surface finish. Classes are designated on drawings or in the specifications by Symbols F1, F2, F3, etc., for formed surfaces, and U1, U2, and U3 for unformed surfaces. Surface irregularities are defined as abrupt or gradual. Abrupt irregularities are offsets usually caused by misplaced forms and the offset is measured directly. Gradual irregularities are measured by use of a straightedge or template and permissible variations from the template are specified for each class of finish.

Related provisions covering concrete, form work, and repair of concrete are in accord with tolerances and finishes. Provisions for batching,

mixing, and placing concrete avoid telling the contractor how to do the job and are stated, to as great an extent as possible, on a performance basis. The specifications previously required that placing, finishing, or repair of concrete could not be performed except in presence of a government inspector. Under current specifications this requirement is waived when an inspector is not avail-

able. Many other improvements have been made in the concrete provisions.

Contractor Furnishes Materials

Reclamation previously supplied practically all construction materials to the contractor. Except for specially designed items of equipment or very large quantities of materials, this policy was changed to require contractors to supply all times of materials and equipment. Although the schedule pay items are for "furnish and install," provision is made for monthly progress payments to cover the cost of materials delivered to the site. In addition to use of federal specifications for specifying contractor-furnished materials, Bureau material specifications are published separately to avoid describing detailed technical requirements and test methods in construction specifications.

Standard specifications for construction of canal systems and transmission lines have been developed. The standard specifications are designed on the basis that once the contractor is familiar with standard requirements, the specific requirements for an individual job and any variance from the standard specifications can be readily identified. New editions of the standard specifications are substantial improvements over the first editions, and we constantly seek means of improving and simplifying the use of standards.

"As Directed" Phrase Studied

The phrase, "as directed by the contracting officer," continues to merit study. It is an important link in contractor-engineering relations. The phrase has been much over-worked and therefore it has received much discussion and study. The problems involved in use of this phrase are not solved by merely eliminating the phrase or stating it in a more subtle manner. The problem is solved in most cases by writing specifications that will eliminate the flexibility which necessitates the use of the phrase. For instance: In lieu of saying "waste of excavated materials shall be disposed of as directed," our specifications either show the disposal areas on the drawings, provide for overhaul, or state the maximum limit the contractor will be required to haul. Our endeavor is to eliminate as many "as directed" statements as is practicable.

Monthly submittal of contractor's cost data in all specifications is no

A.G.C. Views Given

George C. Looz, of Oakland, Calif., who was chairman of the Task Unit on Bureau of Reclamation Specifications in 1951 and 1952 and a member of the unit since 1949 has summarized some of the benefits which he believes have come about through cooperation of the unit and the Bureau's Specifications Committee.

"1. First and most important, it has been possible to carry directly to those in charge of the Bureau in Denver, the many problems confronting the contractor and thereby obtaining their personal interest in us.

"2. Considerable saving and less field argument has resulted from the increased tolerances the Bureau has permitted us in the construction of form work. They are now practical.

"3. Next in importance, I consider the fact that, as a result of our conversations, Denver has actually taken steps to advise their engineers in the field to avoid unreasonable interpretations of the 'or as directed' clauses.

"4. Without going into detail, anyone familiar with the Bureau's original specifications and the present ones, must be convinced that much has been gained in the way of language which should eliminate a lot of misunderstanding between the Bureau's representatives and our own superintendents in the field.

"I personally have canvassed many of our contractors now doing work with the Bureau. In almost every instance they seem very happy with their jobs and the way they are handled. This was not the case in 1946 when the work of the Task Unit first began. Many of our contractors did one job for the Bureau and had no desire to do another. We ourselves felt that way at the time."

HOW TO HANDLE WET JOBS

BAYTOWN TUNNEL

Baytown, Texas

Gen'l Contr.: Farnsworth & Chambers
Excavation: Associated Contractors



ENGINEERS SOLVE COMPLEX
DRAINAGE PROBLEM 40 FT.
BELOW HOUSTON SHIP CHANNEL

ENGINEERS on this job faced a two-fold problem. Existing tube (see photo)—running across ship channel and through dike—lay on a bed of uniform pea gravel, so that hydrostatic pressure acted through the gravel into working area.

- Hence it was necessary for the Griffin wellpoint system to tap this gravel "pipe-line" and shut off flow from channel—while simultaneously lowering 40 ft of ground water. This two-fold task was successfully mastered, through a year of continuous pumping.

- The soil was laminated: silty sand, tough clay and shells. These obstacles were overcome with a drill-rig and sanding casing.

- Photo shows tunnel approach at South portal. Operation was duplicated at North portal.

GRIFFIN

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CONTRACTS • SPECIFICATIONS

longer a standard requirement—we have not required any cost data for at least 2 years. In rare instances where cost data are required, the requirement is stated in such manner as to minimize the possibility of a bidder overlooking this provision.

Unit Price Problems

Allocation or distribution of overhead, plant, and other fixed and intangible costs is one of the major problems confronting the bidder under a unit-price type of contract. He always faces the problem of how to write-off these indirect costs against the various unit prices bid. When underrun of quantities occurs the contractor does not recover the total of his fixed costs allocated over the estimated quantity for the item. For overrun the government pays excessive prices for the overrun quantity. The Task Unit proposed that Reclamation consider means of affording the contractor an opportunity to make a more equitable and proper distribution of fixed charges in his bid, regardless of variation in quantity from the estimated bid quantities. A number of methods to accomplish this purpose were proposed and studied. A method of dividing each principal bid item of the schedule into two items was adopted. Under this method the quantity stated in the first item is practically assured, and the bid price for the quantity of the second item may then be sufficient to cover the actual cost of performing the work. Thus, on completion of the quantity of the first item the contractor is assured of recovering his fixed costs.

Water Control

Another significant work and payment item that has drawn much attention is that of water control for diversion and care of the river and unwatering foundations. Reclamation specifications have usually provided for lump-sum payment for this work. Since the payment for the water control work did not provide progress payments as the work was accomplished, contractors expressed the opinion that such procedure encourages unbalanced bidding in connection with this item. To provide for progress payments a method was initiated to permit the contractor to submit a breakdown of his water control plan. Under this plan the contractor is permitted to allocate his lump-sum bid price for water control into as

many as 12 divisions of water control work. Progress payments include payment for each of these divisions as completed.

There has been a long-time need for a firm method of determining equipment allowance rates for extra work. A formula for equipment allowances for determining rates is now included in the specifications. This formula is based on the monthly expense percentage factor given in the A.G.C. pamphlet, *Contractor's Equipment Ownership Expense*. The formula gives consideration to current replacement price of new-equal equipment, fob factory.

The paragraphs regarding extra work and contractor's protests have been modified to provide for a more equitable and expeditious procedure in handling and processing contract adjustments.

Concerning lengthy delays for handling protests and time lags in making payments after disputes were settled, some complaints had rightful cause. However, in many cases, these delays can be alleviated only with the help of the contractor. If contractors would submit their protests, data, claims, or other necessary information promptly as these matters come up, Reclamation could process them earlier and faster.

Excavation Classification Revised

The Bureau's "common" and "rock" classification of excavation has been eliminated on many of the large jobs. This method of classification has been replaced by classification of excavation on an area and zone basis, or on a basis adaptable to the local conditions where the limits of excavation can be clearly defined by adequate exploration. Earthwork requirements for excavation, backfill, and embankments have been simplified. Tolerances for excavation and other earthwork such as canal excavation and placing of riprap can be found throughout the specifications.

All drawings in the specifications are now reduced to exact one-half scale of the full-size drawings. Dimensions can be scaled with practicable accuracy directly from the specifications drawings. If a bidder desires full-size working drawings, prints are air-mailed at a nominal charge.

Provision is made in many specifications for final acceptance of work which has been completed, but which

constitutes only a portion of the total contract, thus relieving the contractor of maintenance and responsibility for such completed and accepted portions.

Other Improvements Are Made

Whenever feasible, jobs are divided into smaller schedules to give the smaller contractors an opportunity to bid on Government work.

Bid opening dates are no longer set for Mondays or on days before or after holidays. We cooperate with other agencies in coordinating bid opening dates for large jobs to avoid conflicts of bid openings for similar types of work.

To provide for uniformity of field inspection, a continuous training program for construction inspectors is directed toward obtaining uniform Reclamation-wide practices and consistent interpretation of specifications. This program is also designed to induce a helpful attitude in meeting engineering and construction problems on the job. We have been informed by contractors at various times that inspection has improved progressively and difficulties and disputes have been reduced.

In addition to the Task Unit meetings, A.G.C. representatives have been invited to speak at biennial Construction Engineers' Conferences in Denver. At the last three conferences, talks of beneficial and genuine interest were delivered to our construction engineers by R. P. Downs, G. H. Atkinson, and Past President A. S. Horner. L. N. McClellan, the Bureau's Chief Engineer, has shown great interest in such participation—an attitude consistent with his active leadership and regular attendance at Task Unit meetings.

Money Saved

We recognize that there is much room for further improvements and progress in our specifications. Most helpful are the contributions of the Task Unit in calling our attention to and discussing the problems, ideas, and viewpoints of contractors.

The tangible results achieved by the mutual A.G.C.-Reclamation effort embrace more than harmonious working relationships. The quality of Reclamation construction has improved. And of great importance, the beneficiaries of Reclamation construction, the power and water users, have saved money.

Let's keep the "fence" down.

GSA Promises Postponement of Form 23

• Further Consideration for Contractors Obtained by A.G.C.

» EDMUND F. MANSURE, Administrator of the General Services Administration, has notified The Associated General Contractors of America that the effective date for mandatory use of the revised government standard construction contract (Form 23) has been postponed until December 1, 1953.

Originally the mandatory date for use of the revised contract form by government agencies had been June 19. (June CONSTRUCTOR, page 26)

Following a study of the revised contract form by the staff and Executive Committee of the association, Managing Director H. E. Foreman on May 26 wrote to Mr. Mansure pointing out that in the opinion of contractors the document was unfair in many respects. He concluded: "It is our sincere hope that you will recognize the unjustness of this document and take corrective measures before its effective date. We will, as always, be pleased to cooperate and assist in any way possible."

Mr. Mansure wrote to Mr. Foreman on June 18, stating in part:

"In view of the procedural requirements of the Department of Defense, we recently extended, until December 1, 1953, for that Department, the effective date for mandatory use of the form. To avoid having different rules for the military and civilian agencies, I have decided to make the June 19, 1953 date one for optional use only, and to extend until December 1, 1953 the date for mandatory use.

"I definitely want to receive and give full consideration to the views of industry on this or any other standard contract form before it is issued by the government.

"This period of optional use will afford both government and industry an opportunity to discover from actual practice whether there are any 'bugs' in the form. It will also give you and other industry spokesmen the time to present your views to this Administration. In this connection I suggest that you get in touch with our General Counsel, Mr. Maxwell H. Elliott, or Mr. John W. Fretz, Jr., of his staff. Either of them will be happy to arrange for an appropriate conference."

In replying to Mr. Mansure, Mr. Foreman wrote:

"Your thoughtful reply to my letter of May 26, which concerned the Standard Government Construction Contract, has been received and I am gratified to note that you have extended the mandatory use date of the form to December 1, 1953. Members of the A.G.C. staff and I will be pleased to present and discuss our views with Mr. Elliott and Mr. Fretz, whom we will contact directly to establish a mutually agreeable time for such a conference.

"It is my firm belief that open discussion and the free interchange of opinions on this subject will be beneficial to the government and to industry. Your cooperation is greatly appreciated, and I hope to have the honor and pleasure of meeting you personally at your convenience."

Arrangements have been made for holding a conference.

While an analysis by A.G.C. of the revised Form 23 found a number of features to which contractors would object, particular attention was called to a new disputes clause.

This provides that decisions of department heads or their duly elected representatives shall be final and conclusive "unless determined by a court of competent jurisdiction to have been fraudulent, arbitrary, capricious, or so grossly erroneous as necessarily to imply bad faith."

A.G.C. interpretation of the revised clause is that the practical effect is to limit appeals from decisions only in cases in which fraud can be proved. The GSA interpretation appears to differ because Mr. Mansure stated in his letter:

"On the matter of the disputes clause, I think you will find, upon further consideration, that such clause substantially reflects the intent as well as the letter of the dissenting opinions in the Wunderlich case. This is not intended to preclude you from further discussion of this question with Messrs. Elliott and Fretz if you so desire."

Legislation to offset effects of the Wunderlich Supreme Court decision and to assure the right of judicial review of disputes arising under government contracts has been passed by the Senate and is awaiting action by the House Judiciary Committee.

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**by Roger Sherman
with ROGERS TRAILERS**

It was a super-colossal “moving day” for Hamilton Standard Division, United Aircraft Corporation.

Roger Sherman of E. Hartford, Conn., tackled the job. 4000 machines were moved by a circuitous route to a new plant location 15 miles away.

Specialized rigging and hauling experience, plus the strong “back” of his new special-built Rogers 135-ton low-bed trailer, helped “turn the trick.”

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Original estimated moving time was 20 days. By handling it in one piece it was moved in 2½ days.

We are certain Rogers Trailers will meet your everyday requirements and handle those extra-tough jobs that often come your way.

We'll be glad to chat with you.



Little tots along the moving route are awed by the sight of the towering press and the huge trailer.

The 95-ton hot-form press is loaded on the big Rogers 135-ton DPG Power-Lift Detachable Gooseneck Trailer.



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» AFTER the conclusion of World War II, The Associated General Contractors of America revived and expanded its long-range program of working for an expanded construction service in cooperation with the professional societies and other national associations in the industry.

This program has been founded and carried out in the concept that periodic meetings of national joint cooperative committees of the A.G.C. and other organizations can serve as the medium for the interchange of information and ideas on matters of mutual interest, that they can lead to a better understanding of the problems faced by the respective groups, and that they can serve as the means of concentrating the best thinking of the various segments of the industry on common problems.

The national joint committees have also served to stimulate the formation of local cooperative committees, which in many fields have carried out much very valuable work.

During 1952 more than 30 meetings were held of the various national committees which the A.G.C. maintains with other associations and the professional societies. The committees have had no authority other than to study matters of mutual interest between the A.G.C. and the particular society or association, and make recommendations to the parent organizations.

The experience of these committees during recent years has demonstrated that their meetings have led to a clearer understanding of points on which the respective organizations agree, that discussions have cleared up misunderstandings, and that recommendations have been made which are of substantial benefit to both

A.G.C. Expands Relations With Rest of Industry by Committees

• Regular Group Meetings Solve Common Problems

groups, to the industry generally, and to the public.

Great Savings Made

An astonishing total would be compiled if it were possible to identify the untold millions of dollars which members, the government, others in the industry, and the public have been able to save annually through the national and local cooperative work which has led to more fair and equitable contract documents, more efficient administrative procedures, better bidding procedures, improved design and specifications, more efficient methods and machinery, and greater understanding of mutual problems and more ethical relationships between the various segments of the industry.

The organizations with which the A.G.C. maintains national joint cooperative committees are:

- American Institute of Architects
- American Society of Civil Engineers
- American Association of State Highway Officials
- National Association of State Aviation Officials
- Construction Industry Manufacturers Association
- Associated Equipment Distributors Producers Council
- Surety Association of America
- American Public Works Association

The oldest of the committees is with the American Association of State Highway Officials, which was

started in 1921 with former Commissioner of Public Roads Thomas H. MacDonald a member. The newest is with the American Public Works Association, which was established in October 1952.

On following pages are articles which serve as illustrations of the benefits to the industry and to the public of this form of cooperation. The activities of other committees, and the beneficial work which they have accomplished, will be reported in other issues of the magazine.

A.S.C.E. Committee

The already close relationships between the American Society of Civil Engineers and A.G.C. were formalized and made even closer when the national joint cooperative committee was formed in 1948. Gail A. Hathaway, Office of the Chief of Engineers, Department of the Army, Washington, D. C. of A.S.C.E., and Dwight W. Winkelman, D. W. Winkelman Co., Syracuse, N. Y. of A.G.C., the co-chairmen of the committee, are past presidents of their respective organizations.

Among the committee's latest accomplishments, carried out with other A.S.C.E. and A.G.C. committees, has been modernization of the standard form of contract for private engineering construction which had not been changed since 1925.

The committee also has served as an excellent medium through which the

At meeting of A.S.C.E.-A.G.C. Committee are, seated, Charles B. Molineaux, The Arthur A. Johnson Corp., New York City; D. R. Agnew, Agnew Construction Co., Ronceverte, W. Va.; A. S. Macdonald, Strong & Macdonald, Inc., Tacoma, Wash.; D. W. Winkelman, Syracuse, N. Y., A.G.C. co-chairman; Gail A. Hathaway, A.S.C.E. co-chairman; Arthur S. Horner, A. S. Horner Construction Co., Denver; Mason C. Prichard, Corps of Engineers, Rockville, Md.; and E. L. Macdonald of Parsons, Brinckerhoff, Hall and Macdonald, New York City. Standing: A. N. Carter, A.G.C. staff; J. D. Marshall, A.G.C. executive director; Robert K. Lockwood, Civil Engineering; and Arthur E. Poole, The Hallen Co., Long Island City, N. Y.





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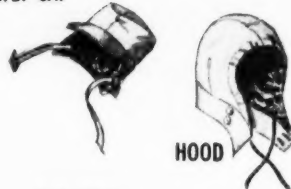
- As a successful contractor, you know just how revolutionary up to date equipment can be a major factor in profitable contract-bidding!
- *Weather + All* clothing has proven that it can practically eliminate winter at bathing suit weight, in easy to wash or clean, air cell insulated clothing for your men on the job.
- Naturally, you know that this means added man hour performance against wage scale payout per man, also added health and morale, less personnel turnover, and more efficient men on the job on your various projects.
- These multiple advantages for your men over your competitive bidders allows you to make more profit and to be sure of getting many contracts that may be otherwise lost. All this, coupled with added assurance of completing contracts under adverse weather conditions, give you much greater assurance of on-time completion and profits in every contract you undertake.
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SUPER'S COAT

THE CONSTRUCTOR, JULY 1953

two organizations could cooperate to encourage young men to enter into the engineering profession, to assist in engineering education and take steps to overcome the shortage of engineers.

Meetings of the committee are frequently held in connection with national or regional meetings of the society or association. A number of A.S.C.E. and A.G.C. chapters carry on cooperative work with a varying degree of formality in their relationships.

Aviation Officials

The latest project of the national joint cooperative committee of the National Association of State Aviation Officials and A.G.C. has been to seek clarification of the federal airport program so that states and cities which have raised funds to match federal aid will know how to proceed. The committee in the past has given much study to the means of expediting and financing airport construction programs needed to keep pace with the increased air traffic.

Other projects on which the committee has made recommendations is in simplifying paper work required by the Civil Aeronautics Authority in the airport construction program; to bring about more prompt payments for contractors on completed work; to simplify plans and specifications for airports and to bring about more uniformity in them. Its recommendations also have led to clarification of federal legislation relating to airport construction.

Co-chairmen are Norman C. Bird, Illinois Department of Aeronautics, Springfield, for N.A.S.A.O., and Max C. Harrison, Harrison Construction Co., Pittsburgh, for A.G.C.

Producers' Council

The national joint cooperative committee of The Producers' Council and A.G.C. quickly recognized, after its first meeting in September 1951, that there were many matters of mutual interest on materials and specifications which would merit the formation of local committees of the two.

The latest project of the committee has been the development of programs which would provide information for contractors on the latest developments in materials and their use.

The committee has also cooperated with Mr. William Demarest, secretary for modular coordination, of A.I.A., who is preparing a manual for use by construction superintendents,

foremen, estimators and others on the advantages and use of the modular coordination method in construction.

Co-chairmen of the committee are Davis S. Miller, The Kawneer Co., Niles, Mich., for The Producers' Council, and W. Murray Werner, The Werner Co., Shreveport, La., for A.G.C.

Public Works Officials

The latest national joint cooperative committee established by A.G.C. is with the American Public Works Association, which was formed in October 1952 and held its initial meeting January 28, 1953 in Chicago.

The first recommendation of the committee was that study be given to a uniform form of contract for municipal engineering contracts and that the revised suggested form of contract for engineering projects just developed by the A.S.C.E. and A.G.C. be used as a model.

Among its other recommendations were that municipal construction and supervision be under direction of the same registered professional engineer or engineering department; that salaries for municipal engineers should be increased; that municipal construction should be by contract, and that cost records of force account construction be open to proper public parties; and that materials and equipment to be incorporated into a project should be furnished by the contractors.

Co-chairmen are George Thompson, City Engineer, Detroit, for A.P.W.A., and C. R. Ralph, Kaw Paving Co., Topeka, Kans., for A.G.C. The next meeting will be held September 11.

The experiences of the committees on a national scale have encouraged a constant increase in the number of committees which are being appointed locally, and which are performing work of benefit to both parties and the public.

Joint Committees Help Equipment Picture

• Work Toward Standardization of Mixers and Pumps

» TANGIBLE benefits to manufacturers, distributors, general contractors, others in the industry and to the public have come about through the cooperative work which The Associated General Contractors of America has undertaken with other associations with respect to construction equipment.

In 1924 the Mixer Manufacturers' Bureau was established by the A.G.C. and the principal manufacturers of contractors' concrete mixers and pavers for the standardization of sizes and capacities. In 1938 the Contractors' Pump Bureau was established by A.G.C. and the principal manufacturers for standardization of the sizes and capacities of pumps.

The standards which these bureaus have established, and have revised when necessary, have become recognized internationally. The standards have permitted contractors to know accurately the capacities of the machinery which they purchase. The standards have permitted manufacturers to direct their efforts to producing better machines of known performance.

This year K. W. Horsman, Worthington Corp., Plainfield, N. J., is chairman of the mixer bureau, and A. S. Marlow, Jr., Marlow Pumps,

Ridgewood, N. J. is chairman of the pump bureau. J. A. Thompson, J. A. Thompson and Son, Inglewood, Calif., is chairman of the A.G.C. Cooperative Construction Bureau Committee which reviews the standards prior to A.G.C. approval.

Joint Committees Formed

In 1947 a national joint cooperative committee was established by the Associated Equipment Distributors and A.G.C. In 1949 a similar committee was established by the Construction Industry Manufacturers' Association and A.G.C.

These committees, which meet separately normally twice a year, have served as an excellent medium for contractors to secure information on the availability of new equipment and repair parts, and for the manufacturers to learn of the demand for equipment by contractors. During the early days of the defense program when there were acute shortages of metals the committees served as a means of coordinating action by the associations in presenting to the government the need for and importance of construction equipment and adequate supplies of repair parts.

Through the A.E.D.-A.G.C. committee
(Continued on page 61)



NO-TURN shuttle haul

increases hourly yardage output over 10% with Koehring *fast-shuttling* DUMPTORS

THERE is no need to turn at the loading unit, along narrow haul roads, or on the fill with fast-shuttling 6-yard Dumptors. Koehring constant-mesh transmission gives the same 3 fast speeds forward and reverse, lets Dumptors operate with equal ease in both directions. Every turn saved cuts 15 seconds off your cycle time, and adds up to an important increase in yards hauled per hour. Here's a typical example:

On a 1,000-foot haul, eliminating only 2 turns saves ½ minute every round trip. Where you would get an average of 13.6 trips per hour with

2-turn operation, Dumptor no-turn shuttle hauling gives you 15.4 trips — an increase of 1.8 trips an hour on the same 1,000-foot haul.

Fast, easy spotting and 1-second gravity dump help keep production high. Costs stay low because there are no complicated, mechanical body hoists to slow up haul cycles — no expensive hoist maintenance or down time to eat into your profits. Let your Koehring distributor show you Dumptor's many other cost-cutting advantages.

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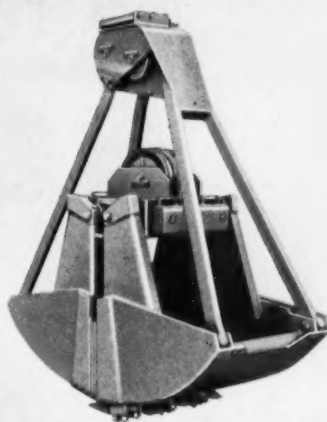
This mountain-side job shows typical no-turn shuttle advantage. Hauling along narrow ledge, Dumper spots close to Keeshring 1½-yd. 403, gets its load, drives to fill, dumps, returns to shovel — without turning.



18-FT.-PER-MIN. Parsons 215 Trenchliner®

For "mile-a-day" production on cross-country pipelines, Parsons 215 wheel-type Trenchliner has 30 digging feeds up to 18-ft. per min. Equipped with square or round-bottom buckets, it digs 13 to 31 in. wide, up to 6-ft. deep. Other 215 advantages: "Tap-In" teeth; reversible, shiftable conveyor; standard tractor-type crawlers with 18" treads, lug-type shoes; standard make 55 h.p. diesel engine. Also check: wheel-type 202 for drainage and utility work; 3 ladder-types, full crawler mounted; and mobile, rubber-tired Trenchmobile®.

PARSONS Company, Newton, Iowa (Keeshring Subsidiary)



Clamshell Buckets . . . Concrete Buckets

Smooth inside and out, Johnson all-welded Clamshells dig and dump with less resistance. Manganese cutting edge, welded to heavy lips, toughens with use, assures big payload performance. Send for bulletin on 3 types, 10 sizes, ¾ to 3 yards.

For normal-sump concretes of average-size aggregates, check Johnson Finger-Tip Control Bucket (above) . . . ½, 1, 1½, 2 cu. yd. sizes. For low-sump concrete, check 1 to 4-yd. Johnson-Dravo Buckets . . . and 2 to 8-yard Lo-Sump Buckets.

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INDUSTRY RELATIONS

(Continued from page 57)

tee has been developed a repair parts order form check list available to all contractors which simplifies and makes more accurate the ordering of repair parts. This committee has supported work of the C.I.M.A.-A.G.C. committee in recommending standardization of repair parts books so that parts can be more easily identified. A.E.D. is exploring means of making its inspection report forms available to contractors in the most useful manner. Ideas for development of new equipment are exchanged in the C.I.M.A.-A.G.C. committee.

Local Committees Suggested

The latest meeting of the A.E.D.-A.G.C. committee, held in Miami in connection with the A.G.C. 34th annual convention, recommended strongly the establishment of local cooperative committees between chapters of the two associations. The co-chairmen, P. A. Dufford, Intermountain Equipment Co., Boise, Idaho, for A.E.D., and C. E. Cooke, Cooke Contracting Co., Detroit, for A.G.C., and S. John Oechsle, Metalweld, Inc., Philadelphia, A.E.D. President, have heartily endorsed the proposal.

Mr. Oechsle, in commenting on value of the A.E.D.-A.G.C. committee, has said: "The contractor and the distributor have learned to work as a team—a team whose goal is to get the job done. In recent years we have seen this teamwork take on a broader meaning. With the formation of the joint cooperative committee, the cooperative spirit, so important between the individual contractor and the individual distributor, has been applied to mutual problems that are national in scope."

Mr. Cooke has stated that there have been many benefits from the national committee in developing a greater understanding of their mutual problems between contractors and distributors, and that the formation of local committees can do much to iron out local problems.

Co-chairman W. B. Greene, Barber-Greene Co., Aurora, Ill., for C.I.M.A., and Past President Dwight W. Winkelman, D. W. Winkelman Co., Syracuse, N. Y., for A.G.C., have frequently expressed their views on the benefits of the committee meetings not only for the greater understanding each group receives of the problems of the other, but also for the ideas which are generated by the discussions helpful to the industry.

THE CONSTRUCTOR, JULY 1953

The Sky's the Limit!

This year, Manhattan is celebrating its 300th anniversary. No one has had a greater share in its development than the contractor, whose constantly improved building techniques have made possible this great concentration of industry, commerce, and cultural activities on a 22-square mile island.

Over the years, the Aetna Casualty and Surety Company has handled contract bonds for many of the great contracting firms which helped to mold the Manhattan skyline. Some of these firms, which today are Titans in the contracting field, have been Aetna clients from their earliest and smallest beginnings.

Thousands of contractors know from experience that the Aetna name on the bond is respected, that Aetna's helpful facilities are unmatched, that its financial strength is unquestioned. That is why so many contractors bond with Aetna — always.



"No Job
too Big-

No Job
too Small"



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Success of A.G.C.-Highway Group Set Pattern for Other Committees

- Oldest Cooperative Committee Was Formed in 1921
- Work Has Led To Many Improvements in Road Building

» OLDEST of the national joint cooperative committees in which The Associated General Contractors of America is active, the joint committee of the A.G.C. and the American Association of State Highway Officials dates back in origin to 1921.

The colossal program for highway construction under way throughout the country at that time brought home the necessity for the closest cooperation between the state highway departments administering the highway construction programs and the contractors executing the work.

An invitation extended by the A.A.S.H.O. early in 1919 to the A.G.C. to further understanding of the difficulties encountered by contractors in building highways and to encourage cooperation between the two associations by presenting the views of highway contractors to the A.A.S.H.O., started the ball rolling.

The views of the highway builders were presented in a paper that was delivered at an A.A.S.H.O. annual meeting and a committee of that association was appointed to carry on discussion of mutual problems with the A.G.C. It is interesting to note that Thomas H. MacDonald, recently retired chief of the Bureau of Public Roads was a member of that first A.A.S.H.O. committee.

First Meeting

What was evidently a meeting for the purpose of placing cooperation between the two associations on a formal basis, was held by this committee and the highway committee of A.G.C. at the Old Colony Club in Washington, D. C. on Dec. 11, 1920.

In 1936 the A.G.C.-A.A.S.H.O. National Joint Cooperative Committee entered the period of its present activity. Its success since then in dealing with the many difficult questions which it faced acted as a spur to the formation of other A.G.C. joint cooperative committees and established a pattern for their organization.

The committee has been meeting at the annual conventions of the participating associations and at regional

meetings of the A.A.S.H.O. Brief mention of subjects which have been discussed at recent meetings gives an idea of the scope of the problems the committee deals with:

Increased financing for highways; better pay for highway engineers; diversion of highway funds; public relations of highway construction; termination clauses; maintenance work by contract; federal-aid participation on stop-gap construction; methods of making small projects in isolated areas more attractive to bidders; variations in proposal guarantee requirements that bidders must fulfill in different states; time to be allowed contractors after awarding of a project; simplification of Bureau of Public Roads forms; general provisions of highway construction contracts; actual construction problems, etc.

Improved Conditions

Fully realizing that operating conditions and laws pertaining to highway work vary among the 48 states, no attempt has been made to deal with those problems which should be handled at the local level. In fact A.G.C. chapters and highway departments have established joint committees at the state level patterned after the national committee to discuss local problems. It is a matter of record that improved conditions regarding most of the above mentioned subjects have been secured through discussion at the state level.

Through the years the discussions nationally, regionally and locally have led specifically, to:

- 1—Improved design for more efficient construction.
- 2—Improved specifications.
- 3—Better contract documents and administrative procedures.
- 4—Higher pay for engineers in highway departments and relieving engineers of non-engineering work to help offset the shortage of engineers.
- 5—Improved public relations, particularly with respect to reducing to a minimum public inconvenience from detours made necessary by highway construction.

6—Performance of maintenance work by contract.

7—Elimination of hand work wherever possible.

8—Adoption of freight rate escalator clauses.

For an evaluation of the effectiveness of the work of the committee, here are some comments by representatives of both associations:

Increased Efficiency

"All problems relating to highway construction are discussed and many positive recommendations for improvements in construction methods, specifications, design and administrative procedures are made, all of which lead to increased efficiency and economics"—George C. Koss, Koss Construction Co., Des Moines, Iowa, co-chairman of the committee for A.G.C.

"I think we have accomplished a great deal over the years in bringing the engineers and the contractors together through the efforts of our joint committee meetings; and one of the outstanding results is expressed by a much closer cooperation between the engineers of each state and the local A.G.C. organization. That is where the real work may be done and where results count"—C. M. Hathaway, State of Illinois Highway Department, co-chairman for A.A.S.H.O.

"The feeling is that these meetings have resulted in a better understanding between the contractors and highway officials and provided the means for solving many mutual problems"—J. A. Anderson, commissioner, Virginia State Department of Highways, a committee member for A.A.S.H.O.

G. T. McCoy, California Department of Public Works: "In both the regional and national meetings of the committee, it is felt that determined efforts should be made to encourage a more representative attendance by contractors who are leaders in the industry, particularly members of both local and national boards of the A.G.C. This likewise applies to attendance by highway engineers and officials representing the states."

N. K. Dickerson, Jr., Monroe, N. C., A.G.C. member: "Perhaps the outstanding achievement of these meetings, to my way of thinking, has been the singling out of 'construction-by-contract.' It has been a subject of keen feeling among those of the association, and frankly, it is felt that we have accomplished more along that line, through these meetings than any other one thing."



● Full heading after both top heading and bench have been excavated. Excavated dia.—51 ft.



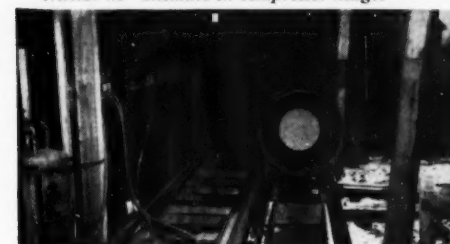
● Main Jumbo for driving top heading—mounts 17 T-350 long-feed drifters on Joy Hydro Drill Jibs.



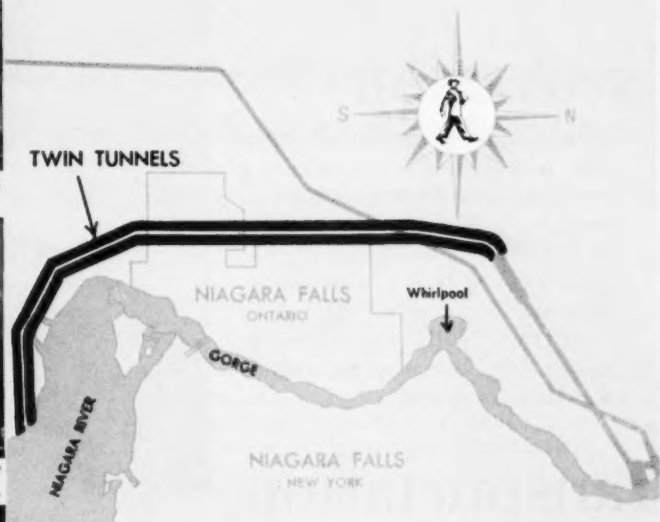
● Jumbo for bench drilling—suspended from roof supports—mounts 13 Joy T-350 long feed drifters.



● 8 Joy WN-102 compressors—referred to by contractor as "ultimate in compressor usage."



● Series 1000 Axivane Fans in ventilation arrangement. Tracks permit adding fans as desired.



PROGRESS REPORT ON THE WORLD'S LARGEST TUNNEL

SIZE: Twin Tunnels 51' Dia., 5½ mi. length.

LOCATION: Niagara Falls, Ontario.

EQUIPMENT USED (All Joy Installation):

114 T-350 Drifters on LW-6A Feeds on Hydro Drill Jibs.

24 WN-102 Semi-Portable Air Compressors.

Series 1000 Axivane Fans—added as needed to maintain air volume.

The world's largest tunnel is being bored out of *solid rock* with the help of Joy rock-drilling equipment, ventilating fans and air compressors.

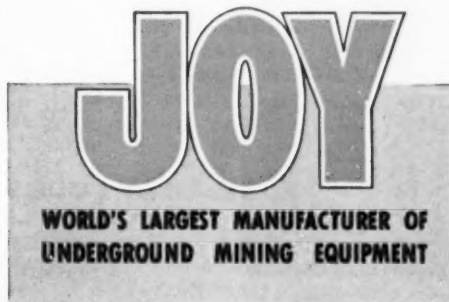
4,375,000 cu. yds. (9,923,000 tons) of rock will be excavated to form the huge twin tunnels. These 5½ mile tunnels will convey water from the upper Niagara River beneath the city of Niagara Falls, Ontario, to a point near the Whirlpool Rapids, well below the Falls. Water thus diverted for hydro-electric power purposes would supply the water needs of 200 million people!

This is the first large tunnel operation where drilling has been mechanized. The "All Joy Equipment" installation confirms Joy's position as leader in the heavy construction and tunneling equipment market. Joy Manufacturing Company, Oliver Building, Pittsburgh 22, Pa. In Canada: Joy Manufacturing Company (Canada) Limited, Galt, Ontario.

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Engineer*



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Hercules Gasoline and Diesel engines play an important part in many construction jobs. Right from the very beginning — Hercules powered equipment clears the ground. Then Hercules powered shovels and earth moving equipment excavates for the foundation. Trucks, bulldozers and tractor shovels used in moving the dirt are also Hercules powered.

Transportation

Even the roads and streets, over which the building equipment and material is transported, are constructed, traveled and maintained by Hercules powered equipment. Industrial locomotives —fork-lift trucks—logging equipment, and other Hercules powered machinery handle and process construction materials for use by contractors.

Construction

Hercules powered cranes, cement mixers and pavers also play an important part in the construction industry.

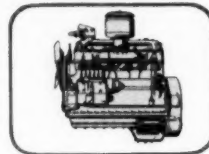
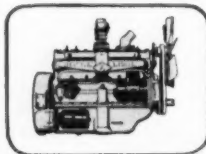
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» THE first meeting of the National Joint Cooperative Committee of the American Institute of Architects and the Associated General Contractors of America was held on June 4, 1948 in Washington, D. C.

The general purpose of the committee was established as: "to provide a medium through which matters of mutual concern and interest can be presented, discussed and appropriate action taken." It was felt that the committee should receive and consider any and all matters submitted to it by general contractors, architects and other elements in the construction industry as well as the public.

As is the case with other A.G.C. joint cooperative committees, the A.I.A.-A.G.C. group limited its actions to making recommendations to its parent organizations and their committees. Future meetings, it was decided, would be called by the co-chairmen as circumstances warranted. Thus far, six meetings have been held, the most recent in Washington, in May, 1952. The next meeting will be in Chicago, Sept. 12.

Outgrowth of Guide Committee

The A.I.A.-A.G.C. committee may be considered an outgrowth of the A.I.A. Committee on Contract Documents and a special A.G.C. committee which jointly developed the "Suggested Guide To Bidding Procedure." Considered a bible for the construction industry, the Guide is regarded as the greatest accomplishment thus far of A.G.C.-A.I.A. cooperation.

It is the general view of architects and contractors that many problems of the construction industry were solved in the development of the Guide. Also highly regarded is the work that the national joint committee has done on contract documents and plans and specifications.

Other typical matters to which the committee directs its attention and on which much progress has been made are: insurance requirements, quantity surveys, retained percentages, liquidated damages, unethical handling of bids, modular coordination, fixed fee guaranteed cost contracts, discounts, rebates and refunds, the right of an owner to terminate a contract, etc.

Perhaps the best way to get an idea of the high opinion that is held of the work of the committee is to listen to evaluations of some of its members, who are after all, representatives of their respective professions and in closest touch with the many

Contractor-Architect Committee Seen As Symbol of Cooperation

- Bidding Guide, Contracts Considered Outstanding
- Architects in Field in Agreement With Builders

problems that affect both fields.

"It is my very candid opinion," says Walter L. Couse, past-president of A.G.C., and co-chairman of the committee, "that the joint cooperative committee between the architects and contractors has been as constructive as any joint committee we have had within the association (A.G.C.)."

"This is definitely evidenced by the fact that such problems as have developed within the industry, which come under the thinking of this joint committee, have been worked out so well within the desires of both the architects and ourselves that there has been very little friction, uncertainty and indecision resulting from same. The architects in the field, by and large, have been in agreement and gone along with the decisions.

"I believe the decentralization of this committee into local joint committees has also proved a great benefit, because their formation in local areas and their work in these areas has satisfactorily resolved local problems, thereby preventing a lot of isolated nuisance problems from taking up the time of the national committee.

Savings In Cost

"There is no question in my mind that a continuance of this type of cooperative committee cannot but help to be a benefit to architects, contractors, and quite logically then, to the owners through savings in cost and improved workmanship."

Max H. Foley, of Voorhees, Walker, Foley & Smith, New York, co-chairman of the committee for A.I.A., has this to say:

"The work of the National Joint Cooperative Committee of the American Institute of Architects and the Associated General Contractors of America, is an example of what can be accomplished by cooperation between two principal elements in an industry where the responsibilities and functions of each element are quite different but where the basic aim is the same.

"Each of the two great national bodies has its own duties and respon-

sibilities, but each knows that it can function better through intelligent cooperation with the other. In periodic meetings differences in viewpoint, sources of friction, and measures to be taken to maintain amity and promote effective operation have been discussed in an entirely frank and friendly way."

A Forward Step

Earl J. Wheeler, president of Frank Messer & Sons, Inc., Cincinnati, a member of the committee for A.G.C.: "While there have been differences as to the approach, the underlying thought has been to establish better relations between the two organizations with the interest of the industry always in mind. The formation of this committee was a forward step and it becomes a most effective method of bringing mutual problems before the two large organizations. The recent changes in the A.I.A. contract documents is an excellent example of the effectiveness of this joint committee."

Harry B. Tour, head architect of the Tennessee Valley Authority, member for A.I.A.: "Perhaps the greatest value of the joint committee lies in its basic concept of industry-wide cooperation. It has become a symbol of the desire of architects and contractors to understand each other's problems and to transcribe these understandings into practices and policies which benefit the entire building industry."

William Stanley Parker, chairman, A.I.A. Committee on Contract Documents: "While the joint committee is of fairly recent organization, it has only formalized the cooperation of the A.I.A. and A.G.C. in regard to contract matters that has been active for 25 years. In the 1920's both organizations joined with the engineers in studies that developed the standard forms for engineering contracts and some minor amendments included in the 4th edition of the A.I.A. documents. Again in the 1930's we cooperated in the amendments incorporated in the 5th edition."

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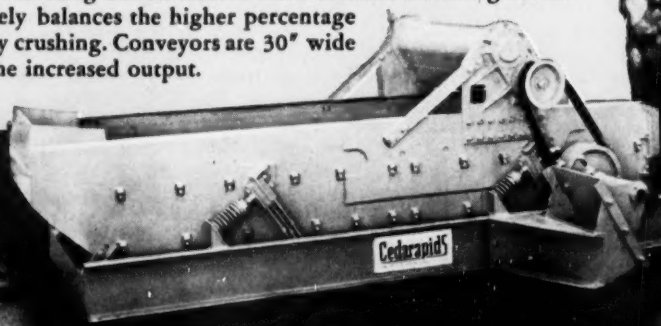
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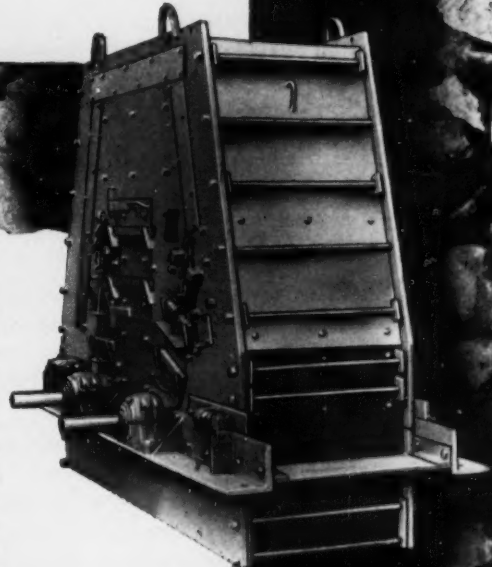
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W. D. Dean

» THE BUREAU of Contract Information is now in its 24th year of operation. Its creation was first proposed in 1924 at a meeting called by The Associated General Contractors of America and attended by representatives of bonding companies, professional societies and trade associations. Need for such an institution was then already apparent, but a practical plan of operation was not easy to evolve so that another five years elapsed before the Bureau actually came into being.

Meanwhile construction, in common with nearly everything else, was riding the great boom of the 1920's. Work was plentiful and paper profits looked attractive. New contracting firms sprang up in large numbers almost overnight and competition became increasingly cut-throat and ruinous.

The time arrived when conservative elements in the business often had to stand back and see important projects go to low bidders who were seriously lacking in estimating skill, managerial ability and financial worth. These unwholesome conditions brought home very forcefully to contractors and their sureties the need for remedial action.

A.G.C. Initiated Bureau Move

The first positive move was formation of a Surety Division of the A.G.C. Membership in this organization included practically all the leading contract bonding companies, and its purpose was to seek cooperative means to remedy some of the ills of the construction industry.

Within this Surety Division final arrangements were made to establish a

Bureau of Contract Information: An Industry and Public Service

By William D. Dean

General Manager, Bureau of Contract Information, Inc.

Bureau of Contract Information, to be organized according to plans submitted by the late S. M. Williams who was then manager of A.G.C.'s Heavy Industry Department. The late A. E. Horst, at that time president-designate of the A.G.C., was a leader in promoting the new institution, and many other prominent members devoted much time and effort to the project.

When details had been agreed on, one question still troubled the surety underwriters. It was, "Will contractors cooperate voluntarily with such a clearing house in sufficient numbers to make it work?" To this Mr. Horst replied emphatically that the members of his association would certainly do so. Mr. Williams gave similar assurances and also submitted sheaves of letters and wires from architects, engineers and public officials strongly endorsing the idea of a central clearing house for information about contractors, and giving cordial assurances of full cooperation.

So it was that the B.C.I. was founded. Sam Williams became its president and for the next 10 years, until he relinquished office in 1939, all his energy and remarkable promotional ability were directed toward making the institution a national source of performance information such as no other American industry possesses.

The Bureau is a non-profit organi-

zation and has nothing to sell. Its original financial set-up provided that the A.G.C. would contribute the services of Williams as executive officer, and surety companies by their subscriptions would take care of all other operating expenses.

Soon, however, it became apparent that if the institution was to serve the best interests of the entire contracting industry a somewhat different arrangement was needed. Therefore the present method of financing was agreed on and has stood the test of time. Under it some 37 surety companies subscribe funds to meet ordinary running expenses, while voluntary contributions from contractors are relied on to provide for many incidental services carried on in behalf of the industry as a whole. About 80 per cent of the expense of Bureau operations is thus borne by the bonding companies.

Recalls Depression "Shake-Out"

The institution began business in August 1929, and a more opportune time could hardly have been selected. Scarcely had the ink dried on its corporate charter when the great stock market crash of 1929 occurred. The business boom came to a sudden halt, and the contracting industry began that steep decline which never stopped until absolute bottom was touched in the dark days of 1932. All the business influences which had sustained construction seemed to operate in reverse. Loans were called, banks failed, owners went bankrupt, bond issues defaulted, mortgage paper became worthless, real-estate and other investments could not be liquidated, and there was no work to be had.

A terrific shake-out occurred among contractors, and as would be expected, the severest impact was against the irresponsible operators, the boomers and financial tight-rope walkers, who were swept out of existence in shoals. Many good, staunch concerns were also forced on the rocks, but it is a remarkable fact that most of them succeeded in shortening sail and were somehow able to ride out the storm.

Throughout the 30's B.C.I. was nearly swamped by the work of col-

ELIMINATION of irresponsibility and loose credit practices in construction was one of the first major tasks of the A.G.C., which established the B.C.I. in cooperation with the Surety Association of America after years of studies and investigations. THE CONSTRUCTOR stated in 1929: "The occasion is one that calls for more than jubilation. For organized constructors must assume a further obligation if this movement is to meet with the success which has been anticipated for it." That the Bureau's service is a unique one of which the construction industry can be proud is evident from Mr. Dean's article.

lecting and verifying contractors' records and at the same time supplying the tremendous demand for reports called for by awarding officials, architects and engineers, financial institutions, and bonding companies. Then, too, the requirements of government emergency agencies such as NRA, PWA and WPA together with similar bureaus set up by state and local governments, threw a heavy additional load on B.C.I. facilities.

Fortunately, reputable contractors for the most part responded readily to requests for performance records, and as the files grew, so did the effectiveness of B.C.I. services. Before long, Williams was able to report that contractor-defaults and failures were occurring chiefly among those concerns which had not seen fit to file their records for B.C.I. scrutiny. Awarding officials, having tested the agency's accuracy and lack of bias, were more and more inclined to accept at face value the showings as to responsibility or otherwise contained in its reports.

World War II Services

In May 1940, the President of the United States declared a state of limited emergency and the effect on B.C.I. was immediate.

The Quartermaster Corps, the Army Engineers and the Bureau of Yards & Docks—all of which had cooperated with this Bureau from the very beginning in the finest possible manner—now increased their demands on its services. The QMC, which at that time was responsible for all troop facilities construction, appointed a Contractor Advisory Board charged with the duty of recommending constructors for cost-plus-fee work. This committee visited B.C.I. offices to inspect its facilities and soon thereafter long lists containing names of thousands of applicants for Army contracts began to arrive for investigation. Navy lists followed, and thereupon B.C.I. entered into the most active period in its history. Every agency of government, however remotely concerned with construction, utilized Bureau information, and many of those responsible for non-government war construction throughout the country did likewise.

Contractors, far and near, came to its offices to file their records or make sure that those on hand were up to date. B.C.I. proved to be the one central source at which trustworthy, contract-performance information was immediately available to hard-pressed officials who needed the facts quickly,

confidentially and on a nation-wide basis. The result was that this Bureau became in effect an agency of government although its services cost the taxpayers not one penny.

Following Hostilities

With the end of hostilities government use of B.C.I. declined, but inquiries from other sources soon took up the slack. During the war years architects, engineers and construction officials in many categories had lost contact with contracting firms with which they had previously done business. B.C.I. was called on to supply interim information. Corporations planning plant expansion found that shortages of labor and materials prevented contractors from accepting additional work. B.C.I. was asked about other concerns. New processes required contractors of special experience, and B.C.I. was asked to supply data regarding them.

For the first time foreign sources began to utilize the huge store of information built up by this institution.

For a year or so prior to the Korean invasion competition among contractors had been increasing notably and prices in many classes or work failed to reflect fully the costs of delays and other intangibles. Some bad weather during the period caused further trouble, and the anxiety of sureties, owners, suppliers and financial institutions was indicated by the increased volume of inquiries received by B.C.I.

Then came Korea and for a while the situation brought to mind the hectic days of 1940. This time however, the rush was on a much reduced scale and the Bureau of Contract Information was better prepared to handle it.

Contract History

Today Bureau records contain a history of contract construction spanning a quarter-century—from the "boom and bust" days on through depression, recovery, war and reconstruction. Most of the leading general contractors, both large and small, and many established specialty concerns, supply current reports of their activities.

Therein lies this institution's strength, because each added contractor-file increases the usefulness of B.C.I. to awarding officials and the more use they make of its facilities the better it can serve the interests of contractors. From the very beginning it has held fast to that independence and freedom from prejudice which are today its outstanding characteristics.

It has files on more than 13,000 construction businesses of all types and sizes, including the oldest, and the largest and the wealthiest in the land. They come from every state in the Union, from Panama, Hawaii, Puerto Rico and Alaska. Their combined capacity is sufficient, in all likelihood, to handle the nation's entire construction requirements either in peace or war. The sun never sets on their world-wide operations.

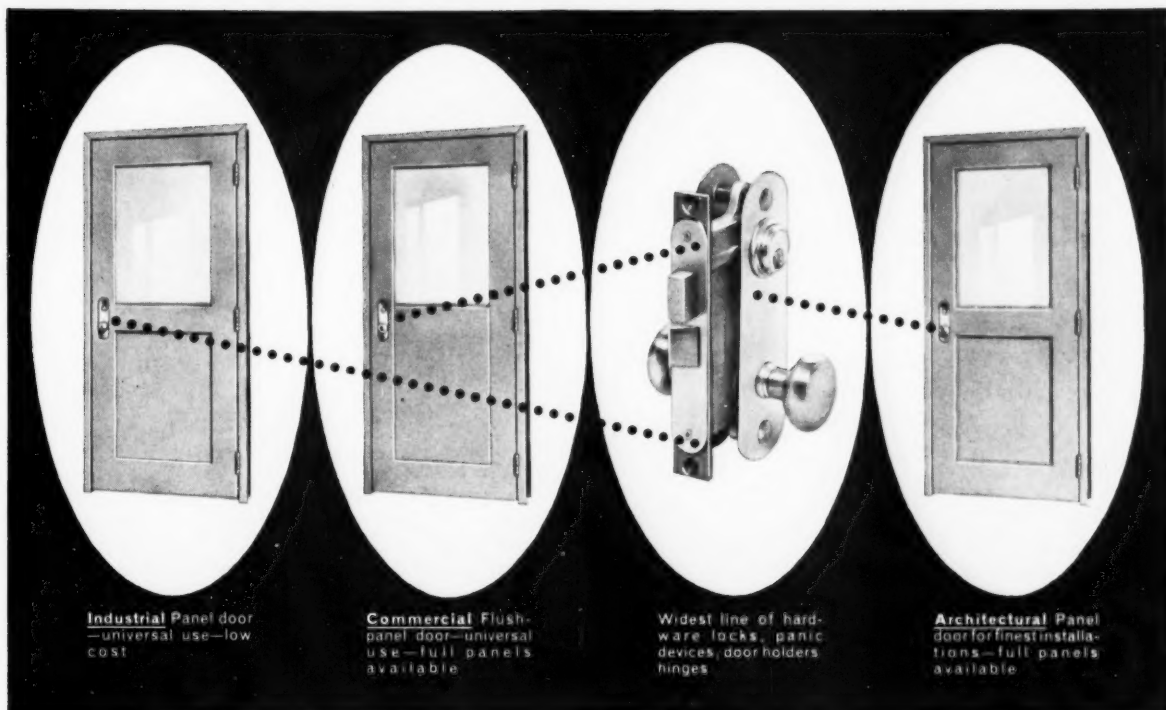
Advantage of Supplying Data

The institution's greatest problem, now and always, is how to overcome the hesitation that sometimes leads contractors to put off until another time the slight effort needed to supply data asked for by B.C.I.

This very human failing creates situations exemplified by that in which an awarding official inquires about several contractors. The Bureau is immediately able to render up-to-date reports on all except one of them, but on that one—which might indeed be best qualified of the lot—the report is obsolete. In such circumstances B.C.I. does what it can to build up the out-of-date report by adding information obtained from miscellaneous sources, but usually the result is by no means so convincing as comprehensive data would be, submitted promptly in regular B.C.I. form. The experience of more than 23 years proves conclusively that a current B.C.I. record is an asset of very real value to every reputable contractor, large or small, and often serves him best at the most unexpected times.

B.C.I. is truly a cooperative enterprise. Its services to the contracting industry are possible only because of the sustained interest, in good times and bad, shown by so many of the country's best contractors; and because of the ungrudging financial and other support given by the bonding companies; and because the national and chapter staffs of A.G.C. have aided B.C.I. work in every way; and because of those tens of thousands of busy men representing every segment of the far-flung construction industry who so cheerfully respond to B.C.I. reference inquiries.

The institution's management is deeply conscious of the trust and goodwill so widely accorded it by the construction industry; and it pledges unremitting efforts to promote the interests of all who possess those priceless business qualifications: Skill, Integrity, Responsibility.



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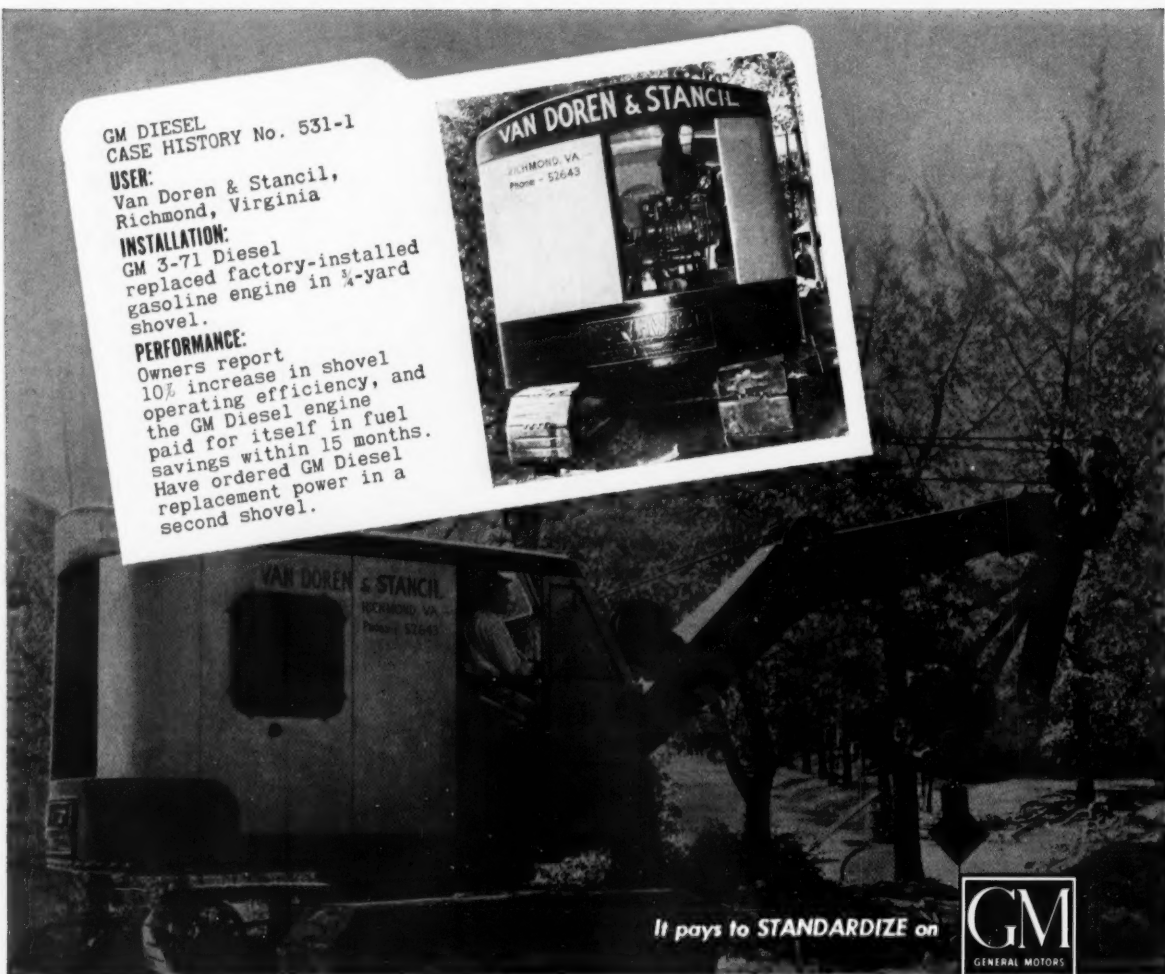
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EDUCATION

• Poll Reveals A.G.C.

Chapters Active in

Education.....Page 75

Entrance to the Civil Engineering Building at North Carolina State College where a special four-year course in construction is sponsored by the Carolinas Branch of A.G.C. Erection of two additional floors made necessary by increased enrollment in the Civil Engineering Department has just been completed. Largest group in the department is the construction section.



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» **CONTRACTORS**, who it must be conceded know something about foundations, are establishing a firm educational base upon which the construction industry may depend for its trained manpower.

The scope of their program in lecture hall and laboratory was revealed in a survey conducted among the 122 chapters of The Associated General Contractors of America in every state of the union and Alaska, which has just been completed. A.G.C. is the one national trade association of general contractors of all types and is recognized as the spokesman for the contracting industry.

The association's 6,300 member-firms execute more than 80 percent of the contract construction work in this country each year as well as a large volume of work overseas.

Answers to the survey show that an increasing number of chapters are working very closely with colleges and universities in the establishment of special construction curricula, in donating funds to finance the expansion of civil engineering departments, encouraging student enrollment, sponsoring scholarships for worthy students and in furnishing instructors from industry.

As a result of this activity "construction" or "contracting engineering" is being recognized in educational circles as a distinct field for specialized training either as an option within the civil engineering department or as

A.G.C. Chapters Are Active In Education, Survey Reveals

- Spur Adoption of Special Contracting Courses
- Occupation Gaining Recognition as Profession

a separate degree curriculum of its own.

Industry's reaction has been enthusiastic. Old timers who have risen to prominence in an industry noted for its keen competition, by virtue of a willingness to assume risks, a talent for organization and accurate bidding are tangibly supporting a program designed to supply the industry with men equipped with a type of training hitherto not available.

Michigan Program

The program now in operation at the University of Michigan under the sponsorship of the Michigan Chapter of A.G.C. is indicative of the quality and scope of this training. Although it was recognized as early as 1930 that about 50 percent of the civil engineering graduates of the university were being employed in the construction field, it was not until 1948 that a construction option in the department was formally adopted.

In setting up the option it was considered of paramount importance that the student be first of all a civil engineer at graduation. It was also the

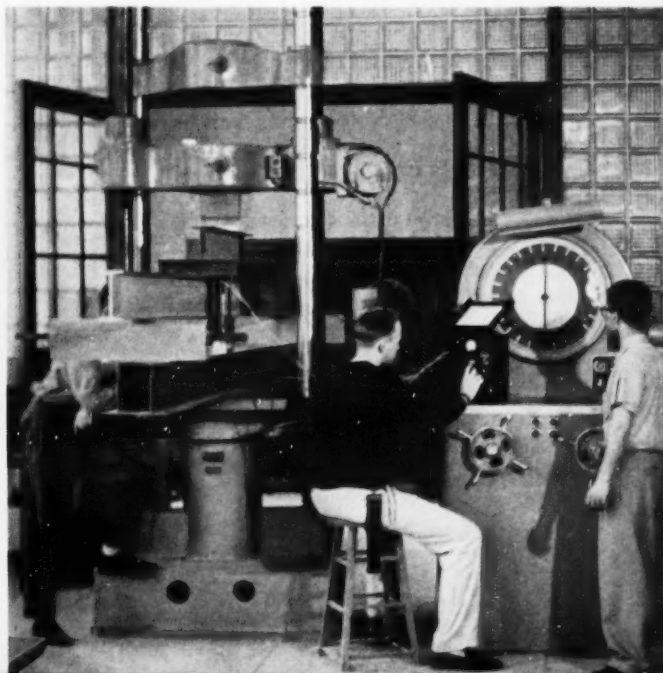
opinion of the chapter that students in the program should receive a somewhat broader training than engineers have in the past.

"We felt that these boys should have courses not only in estimating, construction methods and equipment, foundations, structural design, etc., but also that the requirements for a construction engineer should include accounting, the legal phases of construction, a course in business enterprise, labor relations and other courses of this nature," said C. E. Bottum, of Townsend and Bottum, Inc., Ann Arbor, Mich., who with Harry Conrad, of the Christman Company, Lansing, made up a chapter committee of two appointed to promote construction education programs at the University of Michigan and Michigan State College.

"We found that the University of Michigan offered all these courses but they were not all offered in the College of Engineering," said Mr. Bottum, "so it was a matter of putting the right courses together with the cooperation of the university's School of Business Administration in order to formulate the requirements for the construction option under the Department of Civil Engineering."

Eleven hours out of a total of 140 required for graduation are allotted

Below, students in the construction curriculum at North Carolina State College working on a highway model. Similar models are also used on building projects for teaching purposes. Right, a steel beam is tested at the same institution.





The Mortimer E. Cooley Memorial Laboratory on the University of Michigan's new North Campus, which will house the Engineering Research Institute.

to the construction option. Of these 11 hours, three hours must be taken in a civil engineering design course, preferably highway or structural; another three are specified in construction methods and equipment, and two in cost analysis and estimating. The other three hours may be chosen from a group of appropriately selected courses, chief among which are applied soil mechanics, legal aspects of engineering and economics of business enterprise.

Courses of the "trade school type" were avoided. However, in keeping the training at a professional level, chapter members and university officials did not lose sight of the importance of balancing theory with practice. Considered one of the main courses in the construction option is the course in construction methods and equipment. This is taught by Professor Glenn L. Alt, who began teaching it at the university in 1928 when it was offered as an elective in the structural option of civil engineering.

A laboratory scene at the University of Delaware during a lecture.



Drawing from the vast experience available at his elbow, Professor Alt devotes about six afternoons during this course to talks by contractors from the Michigan and Detroit Chapters and the Michigan Road Builders' Association of A.G.C. The construction option has been very popular since its inception and more and more students are planning to stay for a fifth year to obtain the master's degree that was recently established at the university.

A Real Need

"As a result of conferences with representatives of the construction industry and an analysis of the duties and responsibilities of recent graduates in this field, it was found that there was a real need for a master's degree which would include courses in economics, personnel administration, accounting and other subjects beneficial to those who might be expected to have administrative as well as technical responsibility in the construction industry," said Professor Alt.

"By a careful selection of courses in his junior and senior years, a student in his fifth year can obtain a

wide range of knowledge in the construction and allied fields or can concentrate on particular phases of the program," he said.

Mr. Bottum said it is the belief of the Michigan Chapter that the fifth year of instruction will be a great advantage to the men taking it. The added courses give the student a very good background to become a construction engineer or a contractor.

The activity at the University of Michigan is complemented at Michigan State College by a scholarship program also sponsored by the Michigan Chapter of A.G.C. Under this program begun in 1952, the chapter awards four scholarships a year to seniors working toward the degree of bachelor of science in civil engineering. The scholarships are worth \$125 each and run for a year.

According to George W. Combs, secretary-manager of the chapter, a "considerable" reorganization of the engineering department at Michigan State College is now being planned under the direction of Dr. John Raymond Snell, head of the Civil Engineering Department. Mr. Combs said particular emphasis is being placed on the inclusion of additional practical construction courses.

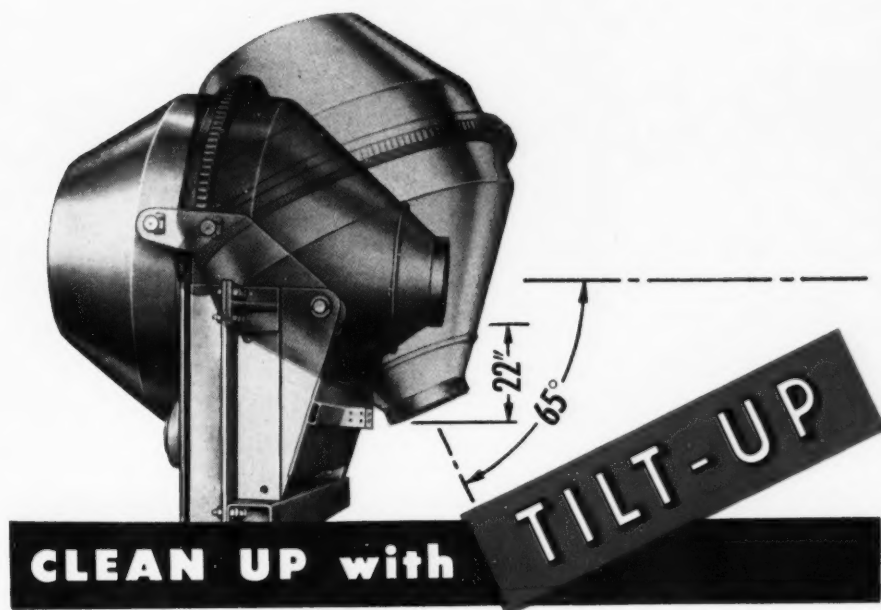
As a vital link in the education of students at both schools, summer employment between their junior and senior years is offered to the students by both the Michigan and the Detroit Chapters.

Mr. Combs said the students have proven very useful on the job. He expressed the hope that the educational programs sponsored by his chapter may be broadened in conjunction with the Detroit Chapter to include other colleges in the state.

A Direct Attack

Outstanding as an example of a direct attack on a specific need is the campaign just launched by the Michigan Road Builders' Association in Lansing. Designed to relieve the shortage of manpower trained in surveying which now exists in state and local agencies administering highway, street and airport services, the program was developed in cooperation with the Highway Department of the State of Michigan and the University of Michigan and later widened to include a number of students applying to Michigan State College, said C. J. Carroll, executive secretary of the chapter.

(Continued on page 80)



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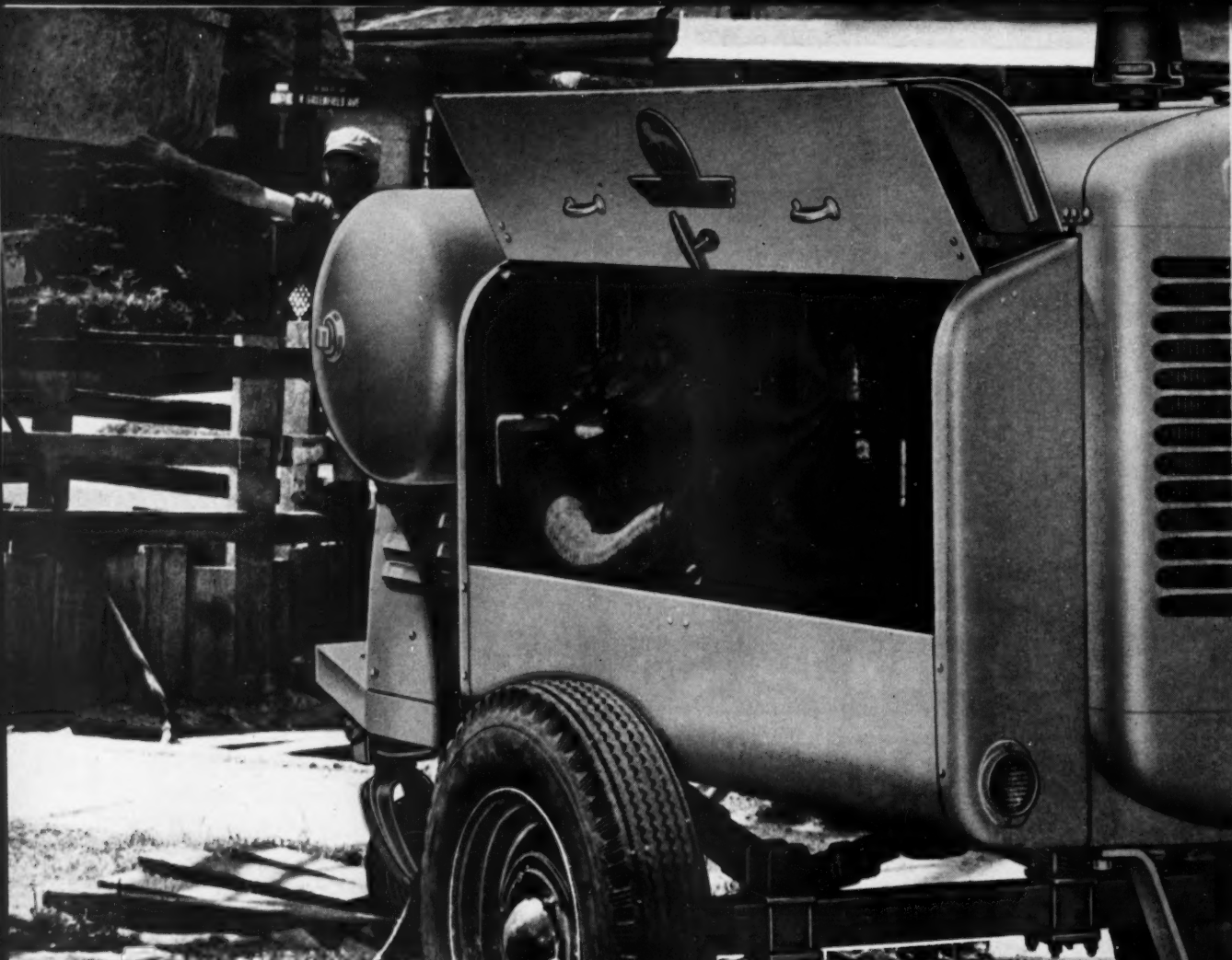


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HAMPSHIRE: Manchester — NEW JERSEY: Cranford, Kingston — NEW MEXICO: Albuquerque — NEW YORK: Albany, Binghamton, Buffalo, Long Island City, Newburgh, Rochester, Saugerties, Syracuse, Whitesboro, Woodside (L.I.) — NORTH CAROLINA: Charlotte — OHIO: Cincinnati, Cleveland, Columbus, Dayton, Toledo — OKLAHOMA: Oklahoma City, Tulsa — OREGON: Portland — PENNSYLVANIA: Bethlehem, Harrisburg, Philadelphia, Pittsburgh — RHODE ISLAND: Providence — SOUTH CAROLINA: Columbia — SOUTH DAKOTA: Rapid City, Sioux Falls — TENNESSEE: Chattanooga, Knoxville, Memphis, Nashville — TEXAS: Dallas, El Paso, Houston, Lubbock, San Antonio — UTAH: Salt Lake City — VIRGINIA: Richmond, Roanoke — WASHINGTON: Seattle, Spokane — WEST VIRGINIA: Clarksburg, South Charleston — WISCONSIN: Milwaukee — WYOMING: Casper.



(Continued from page 76)

It provides \$100 each for 40 students to attend an eight-week course in surveying at camp this summer; 32 with the University of Michigan and eight with Michigan State College. Although established as a vocational training program, the curriculum was formulated to include definite academic requirements.

It is limited mainly to high school students who could pass the state civil service examination for Engineering Aide B. The course is recognized by the Michigan State Civil Service Commission and completion of the training entitles individuals working for the Highway Department to an additional \$22 a month in salary. The course is accepted as approximately two-thirds of the surveying instruction given at Michigan University and satisfies the entire surveying requirement of the Department of Civil Engineering at Michigan State College for work leading to the bachelor of science degree in civil engineering.

A curriculum that differs in concept from the program at the University

of Michigan is the course of studies sponsored at North Carolina State College by the Carolinas Branch of A.G.C. It is offered by the Civil Engineering Department but is a distinct and separate four year curriculum leading to the degree of Bachelor of Science in Construction.

The program is supported by the Carolinas Branch through the North Carolina Engineering Foundation. The Educational Activities Committee of the branch composed of R. A. Bryan, T. A. Loving Co., Goldsboro, chairman; J. R. West, P. S. West Construction Co., Statesville; R. T. Burney, Pyramid Construction Co., Wilmington, and E. G. Singletary, V. B. Higgins Co., Greensboro, all of North Carolina, serves as liaison between the branch and the foundation.

\$73,000 Raised

Through solicitation, the committee has raised about \$73,000 for the foundation of which about \$5,000 has been spent. The money is used to augment professors' salaries to encourage the best men available to join the

faculty of the construction curriculum. The committee was active in establishing the program and when data now being assembled are available, it will confer with the faculty on revising it to make it more effective. The curriculum was established in September, 1949, and the first 29 graduates received their degrees in 1952. Thirty-three were graduated this year.

Each year the branch presents a certificate and a cash award to the two outstanding seniors in the construction course. John Millard Gilkey of Raleigh won first prize this year and Johnie Hooper Jones of Charlotte was presented with the second prize. The awards were made at the spring meeting of the North Carolina Section of the American Society of Civil Engineers, with M. R. Cowper, Carolinas Branch president, and Fred F. Van Atta, manager of the building division of the branch, officiating.

The Educational Activities Committee is considering sponsoring one or more scholarships at the college as an added incentive to construction students. In addition to official activities of the branch, many individual members encourage worthy students by paying part or all of their expenses.

The North Carolina State College construction curriculum is designed to prepare the student to enter the construction industry by training him adequately for future work as an owner, manager or executive in the industry. It is recognized that the majority of men entering the industry require some engineering training. But it is borne in mind that they will also face problems of labor, management, organization and finance.

Balanced Curriculum

The curriculum provides a reasonable balance of training in these fields and gives the student a firm foundation on which he can build through self-effort on the job in later years. The freshman year of this curriculum prescribes the same college work that is recommended for all students in the School of Engineering. Carried out under the direction of Dr. Ralph E. Fadum, head of the Civil Engineering Department, the program breaks with traditional civil engineering studies after the freshman year by its emphasis on the management aspects of all types of construction activities rather than on design.

While the students do study many
(Continued on page 82)



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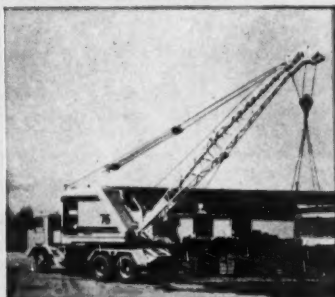
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EDUCATION

(Continued from page 80)

fundamental subjects in common with civil engineering students, a special series of courses in the third and fourth years provides for specialization in the contracting field. The junior year courses include estimating procedures, cost studies and the preparation of bids for an actual project. The senior year is devoted to planning and organization, including project analysis, plant layout, equipment requirements and the scheduling of construction operations.

Iowa is another state where A.G.C. activity in the field of education is particularly marked. Active scholarship programs are underway with the sponsorship of two chapters, the Master Builders of Iowa and the Associated General Contractors of Iowa.

Leadership Primarily

Two scholarships a year are given by the Master Builders, one at Iowa State College to a student seeking a degree in architectural engineering, and one at the University of Iowa to a civil engineering student intending to go into construction work. The scholarships are worth \$500 each, payable in two installments, half at the beginning of the senior year and half at mid-term.

In picking the recipients, the future plans of the students are given considerable attention. Primarily the chapter seeks students with outstanding qualities of personality and leadership and those qualities which make for a successful contractor.

"In this connection, if the student has been unable to participate in extracurricular activities on the campus because of his need to earn outside income, we impress upon the boy that the award of \$500 should enable him to do many things in his senior year that he has hitherto been unable to do," said W. W. Moeller, executive secretary of the Master Builders.

Just One Facet

The A.G.C. of Iowa grants a year's scholarship valued at \$500 to a student in civil engineering at Iowa State College. The scholarship, however, is just one facet of the chapter's activities in conjunction with Iowa State.

"Our chapter has had a standing committee for the past 20 years which has worked with the faculty at Iowa State in reviewing civil engineering studies," said O. W. Crowley, executive secretary of the chapter. In addition, chapter members have been

very active as classroom lecturers and in furnishing practical field problems for students drawn from actual construction jobs.

Eleven scholarships are granted annually in Wyoming at the University of Wyoming, six through the Associated General Contractors of Wyoming and five through its members. This is a new program which was begun in September, 1952, and is an example of the gathering momentum of A.G.C. activity in this field.

Other chapters sponsoring scholarships include the Intermountain Branch, Salt Lake City, Utah, with one at the University of Utah and another at Utah Agricultural College; Arizona Chapter, Phoenix, three at the University of Arizona; Nebraska Building Chapter, Omaha, one at the University of Nebraska, and the Colorado Contractors Association, Denver, four at the University of Colorado and Colorado A. & M. College.

Other Educational Activities

A.G.C. activity in education also takes other forms. Many chapters for instance, sponsor special programs, most of them under university supervision, in management, personnel, supervision and other phases of the industry. Included in this group are the A.G.C. of Minnesota, the A.G.C. of Delaware, Municipal Contractors Association of Dallas, Texas, Colorado Building Chapter, Houston Chapter, South Texas Chapter, General Contractors Association of Milwaukee, Seattle Chapter, Memphis Chapter and Fort Worth Chapter.

In addition, chapters have for many years cooperated with engineering schools in assisting in the preparation of curricula, furnishing educational aids and lecturers and advisors from industry. A.G.C. members serve on numerous local apprentice training committees. A national, coordinated apprentice training program among the chapters is directed from association national headquarters.

The Georgia Branch, El Paso Chapter, Chicago Builders' Chapter and Wisconsin Chapter are among those now planning scholarship programs. An example of cooperation in the education field with architects is the New Orleans Chapter, which maintains a joint bank account with the local chapter of the American Institute of Architects. Funds donated by both chapters are used to supplement regular instruction and other facilities available at Tulane University.



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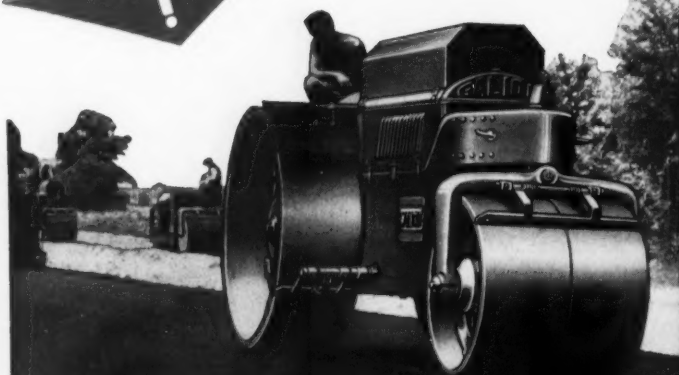
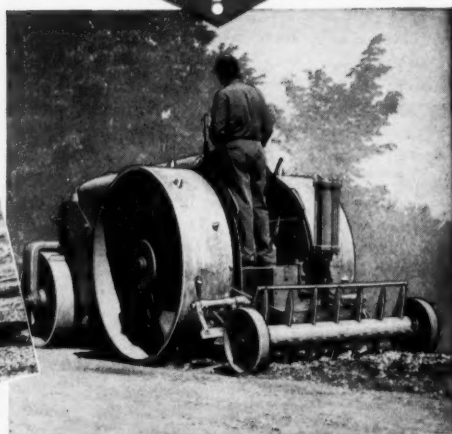
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● **"The Contractor and You" . . . Page 87**

● **Uniform Road Signs in Missouri . . . Page 93**



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Chris Larson Co. of New Orleans used an American Model 75 on the Mayflower Apartments, shown above; and the operator commented that no other hoist could compare with the American in operation, safety, and long wear.

Why? The big difference, we believe, is in *better basic design*, created through long experience. That means stronger bed and side frames; external contracting band clutches; precision-cut steel gears; shafts that hold their alignment. If you want that kind of extra quality, and the better speed, accuracy and dependability that go with it, select your hoist from the broad American line. Your nearest American distributor can help you find exactly the model that's best for your needs.

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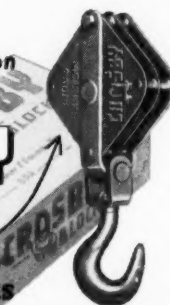
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(Prof. Peurifoy, in this address over radio station WTAW, presented in simple, yet forceful terms a description of the functions of the general contractor, thereby performing a fine public relations service for the contractors in his community.—Ed.)

» LADIES and gentlemen of the radio audience, I am happy to have this opportunity to talk to you on the subject "The Contractor and You." I hope that, as a result of this talk, I may be able to convey to you a clearer understanding of the relationship between the contractor and you. Perhaps the best method of doing this to explain some of the services which the contractor has to offer you.

Nearly all of us have at some stage in our life demonstrated an interest in building. During our early childhood we enjoyed constructing buildings, bridges, railroads, highways, etc. with our Christmas toys. We often dreamed of the time when we could construct real objects. However, most of us abandoned our early interests and directed our activities into other fields. But the contractor did not abandon his early interests. He developed these interests into a profession, in which he applies his energies, resources and finances to construct the many projects that are now serving us. He is a builder. Last year our nation spent more than 30 billion dollars on new construction. Most of this construction was done by contractors.

Functions of a Contractor

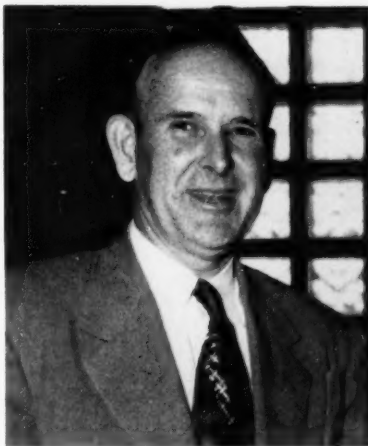
Specifically, what does a contractor do for you? As an individual or a group of individuals he combines materials, labor, equipment, skilled supervision and financing to give you homes, schools, churches, office buildings, highways, bridges, water systems, sewage disposal systems, airports, dams, power plants, etc., in fact nearly all of the physical structures, erected by man, which you see and use every day. If all of the projects that have been constructed by contractors were suddenly removed from our nation America would be a desolate place, indeed.

How does the contractor perform his services for you? You or your representatives establish a need for a project. An engineer or an architect is engaged to prepare plans and specifications for the project. These tell the contractor just what is wanted, in size, shape and quality. When the plans are completed contractors are

The Contractor and You

By R. L. Peurifoy

Professor of Construction Engineering, A. and M. College of Texas



R. L. Peurifoy

notified that the project is to be constructed, and they are invited to secure copies in order that they may bid, in competition with each other, for the opportunity of constructing the project. At a designated time and place the contractors submit their bids, which are simply offers to construct the project for a specified price, which each contractor establishes for himself. Usually the contract is awarded to the lowest bidder if he is qualified to do the job. After the successful contractor is selected he enters into an agreement with the owner of the project, which requires him to complete the project in accordance with the plans and specifications, usually for a specified amount of money, and within a designated time.

As soon as a contractor is notified by the owner that he has been selected the contractor prepares a construction schedule for the entire project. This schedule enables him to place orders for the delivery of materials and to make arrangements for labor and construction equipment that will be needed. Construction is started at the earliest practical time and is skillfully and industriously pursued until the project is completed. As the result of his skill, experience and integrity the contractor is able to deliver to you a project for which you and he can justly be proud, and at a cost which is lower than it could be provided by any other method.

How can a contractor do this? He can do it because he has acquired years of experience in the field of construction. He has a staff of skilled men from the craftsmen to the highest rank who know what is to be done and how to do it in a manner which will produce the best possible quality of work at the lowest practical cost. Contractors are employing increasingly greater numbers of graduate engineers, with fundamental training in construction, to enable them to improve their services to you and at the same time to reduce the costs of such services. The old days of hit or miss, guesses and uncertainties in the construction industry are pretty well gone. Modern construction requires intelligent and responsible analysis of every operation from the first shovel full of earth to the last coat of paint. The construction industry is staffed with men who are qualified to assume these responsibilities. The A. and M. College of Texas has trained many of these men for the industry.

Assumes Many Risks

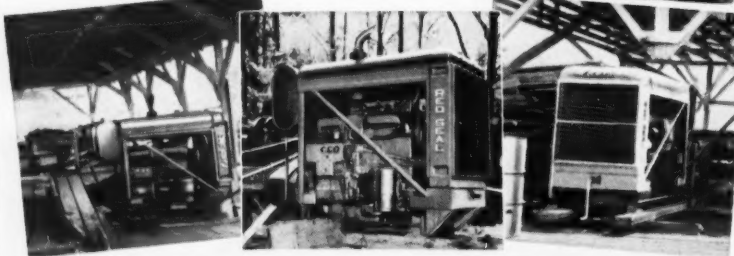
What risks does a contractor incur in constructing your project? When a contractor agrees to construct your project for a fixed price he assumes all risks related to the construction of the project. These risks involve possible increases in the costs of materials, wages to the laborers, damages resulting from strikes, floods, storms, fires, injuries to workers or to the public, etc. Regardless of what happens you are protected because he assumes the risks. If a partially completed building is destroyed by a fire or a storm or in any other manner, if a dam or a bridge, under construction, is swept away by a flood the owner will suffer no loss. The contractor will restore the damage and deliver to the owner a finished project at no additional cost to the owner. He will furnish a performance bond, backed by a surety that is authorized to do business in the state, which guarantees that he will construct and deliver the project to the owner at the agreed price.

What does the contractor receive for furnishing these services? As a builder he will derive considerable pleasure from satisfactorily complet-

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PUBLIC RELATIONS

ing a worthwhile project. In addition he hopes to realize a profit from his operations. Many of you probably think that his profits are spectacularly high. Let me assure you that this is not the case. Based on the report of a bank which finances more contractors than any other bank in the nation the average profits of contractors, after paying federal income taxes, are approximately as follows:

- For building contractors about 2½ per cent.
- For highway contractors about 4 per cent.
- For mechanical contractors about 4 per cent.
- For contractors engaged in heavy engineering construction about 4½ per cent.

Naturally, the profits vary between contractors and projects. The profits given are averages. I think that we will all agree that these are very modest profits, considering the risks which the contractor assumes.

A question that is frequently asked is, can not the owner construct a project at less cost than is charged by a contractor? In nearly all cases the answer is "No." If the owner could exercise all of the skill and economy that is available to the contractor he could not hope to save more than the profit paid to the contractor. However, the owner will not likely have competent personnel to analyze a project to determine the most economical methods of constructing it, and he probably will not have skilled supervisors to organize labor efficiently. It is doubtful if he will have the most suitable construction equipment. The waste of materials will probably exceed those of a contractor. The losses from these items, will, in most instances, exceed the profit paid to the contractor.

Equipment Investment Noted

I wonder if you have an approximate idea of the amount of money which a contractor has invested in construction equipment? Most of us in this vicinity saw Highway 6 widened through Bryan recently. The total cost of equipment for this project exceeded \$100,000. The machine which mixed and placed concrete will cost today more than \$30,000.

Consider the contractor who constructs the earth fill only for a highway project. Such a contractor will

(Continued on page 92)

3 steps to faster drilling

1. Bits That Cut Faster—Stay Sharper Longer

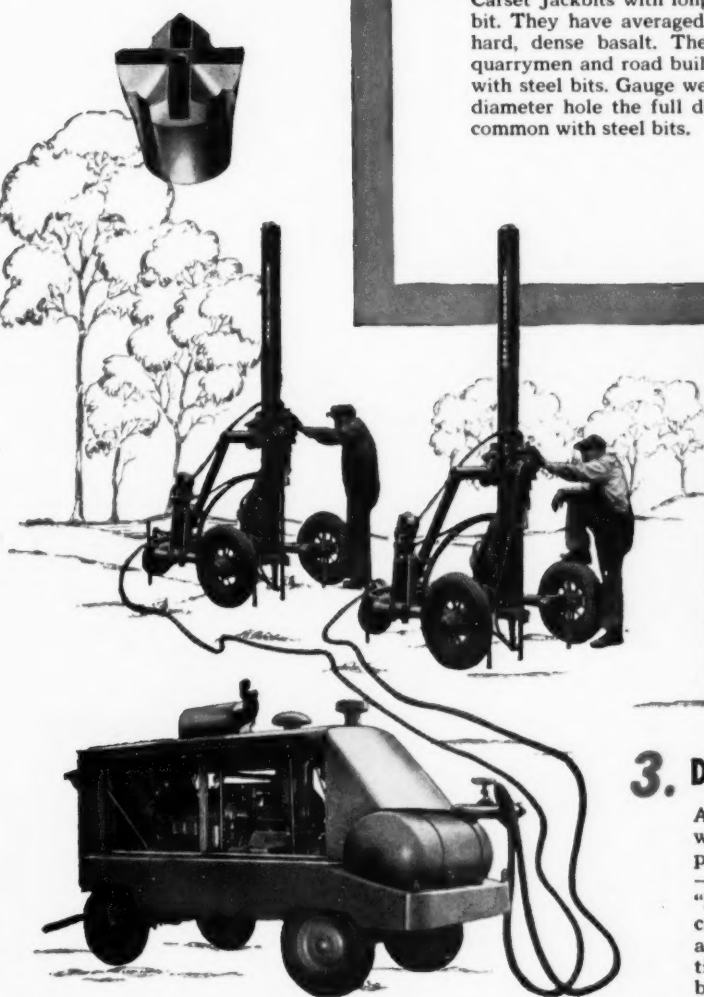
Carset Jackbits with long lasting Carbobloy inserts give more footage per bit. They have averaged 260 feet—compared to 1 foot for steel bits—in hard, dense basalt. Their higher drilling speeds have enabled many quarrymen and road builders to complete five blast holes for every three with steel bits. Gauge wear is so low that one bit will produce a uniform diameter hole the full depth of the bore—eliminating the tapered holes common with steel bits.

2. Powerful Fast-Working Drills

FM-3 wagon drills combine maximum drilling power with complete flexibility for drilling in any position. Mounting the hard-slugging X-71 WD rock drill, the FM-3 is unexcelled for drilling speed and hole-cleaning ability. It handles 6-foot steel changes and drills holes up to 24 feet deep. An exclusive self-locking, slip-proof worm gear arrangement quickly raises or lowers the yoke into any position. The tower can be inclined to any desired angle and rotated at right angles to the carriage for operation in restricted areas. The wheels can be turned 90° for line holing close to a face.

3. Dependable, Economical Compressors

A GYRO-FLO 600 easily handles two FM-3 wagon drills. The portable two-stage rotary compressor supplies a smooth flow of air at all times—permits smoother operation of air tools. The "Air Glide" capacity control with "Floating Speed" control of engine keeps pressure between 100 and 110 psi at all times. The oil-cooling-lubrication system keeps discharge air temperatures below 200° and wear down to a minimum. The GYRO-FLO 600 can be moved quickly into new positions on the job because it is up to 40% lighter than other equal-capacity compressors. Other models—105, 210, 315 cfm.



Use the **RR** CONTRACTORS' COMBINATION

- Everything you need for AIR POWER.
- Top quality machines that work as a team.
- Machines designed, built, sold and serviced by men who know AIR POWER.

Ingersoll-Rand

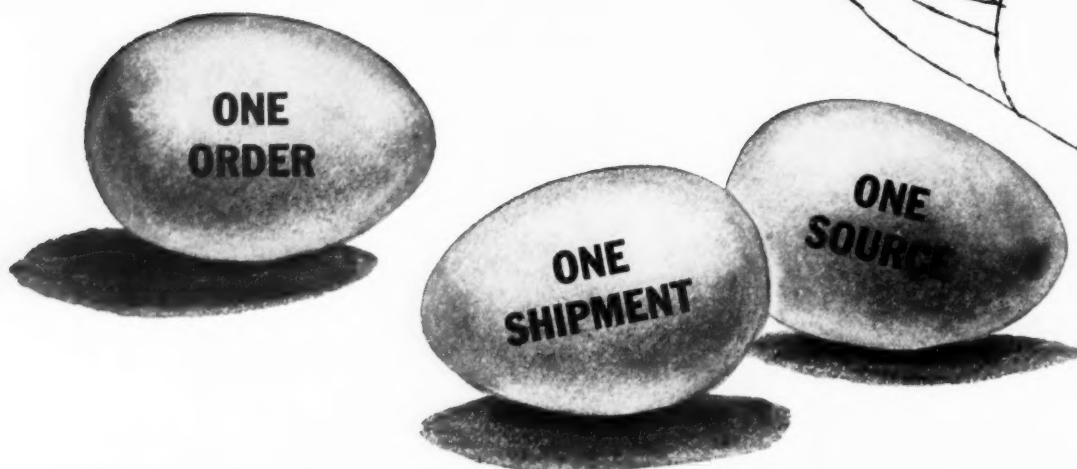
11 BROADWAY, NEW YORK 4, N. Y.

847-14

COMPRESSORS • TAMPERS • ROCK DRILLS • WAGON DRILLS • JACKBITS • DIGGERS • PUMPS

THE CONSTRUCTOR, JULY 1953

89



It's smart business to put ALL YOUR EGGS IN ONE BASKET...

when it's the
BLAW-KNOX
"Complete Package"
 of concrete paving equipment

IT'S the most efficient operating policy as well as smart business to put all your eggs in one basket . . . when those "eggs" represent every piece of concrete paving equipment you need, *PLUS* all the advantages of a one-source "package" paving system.

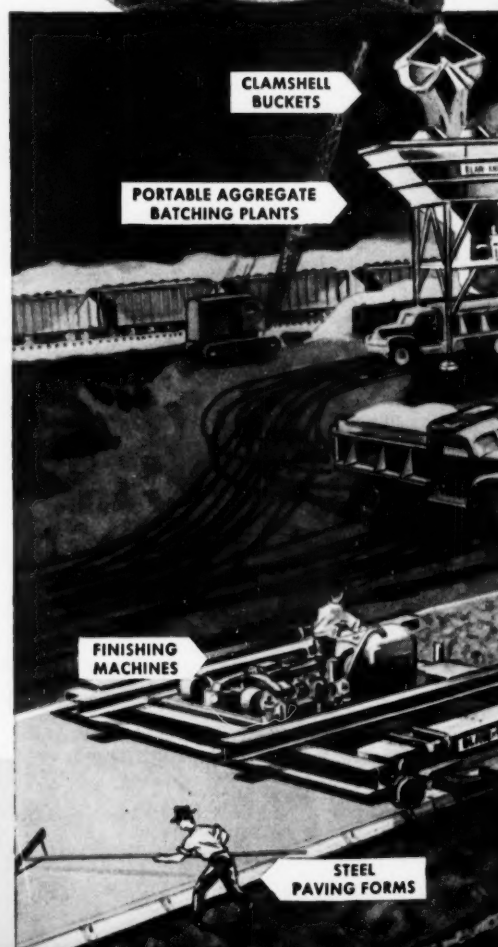
With the Blaw-Knox "Complete Package", every operation is 100% mechanized in a set-up that is engineered for big production at a schedule-trimming pace. You have all the benefits of depending on one, and *only* one, source . . . one reliable manufacturer who gladly accepts the responsibility for each piece of equipment functioning efficiently and economically in a balanced operation . . . and one dependable distributor source which assures you of the prompt, skilled service that keeps you operating at full efficiency at all times. Remember, just *one* Blaw-Knox trained man can service *all* your "package" equipment!

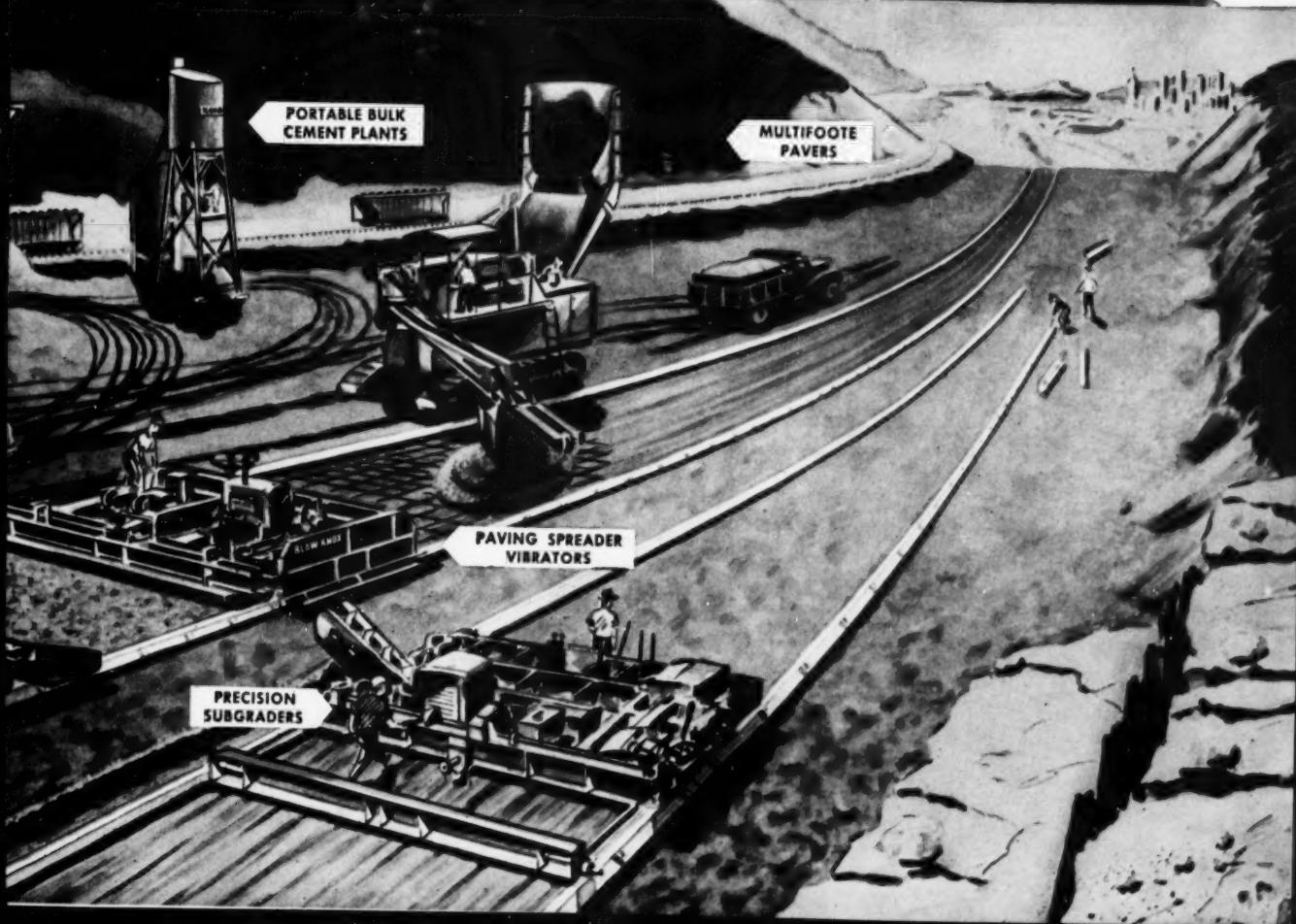
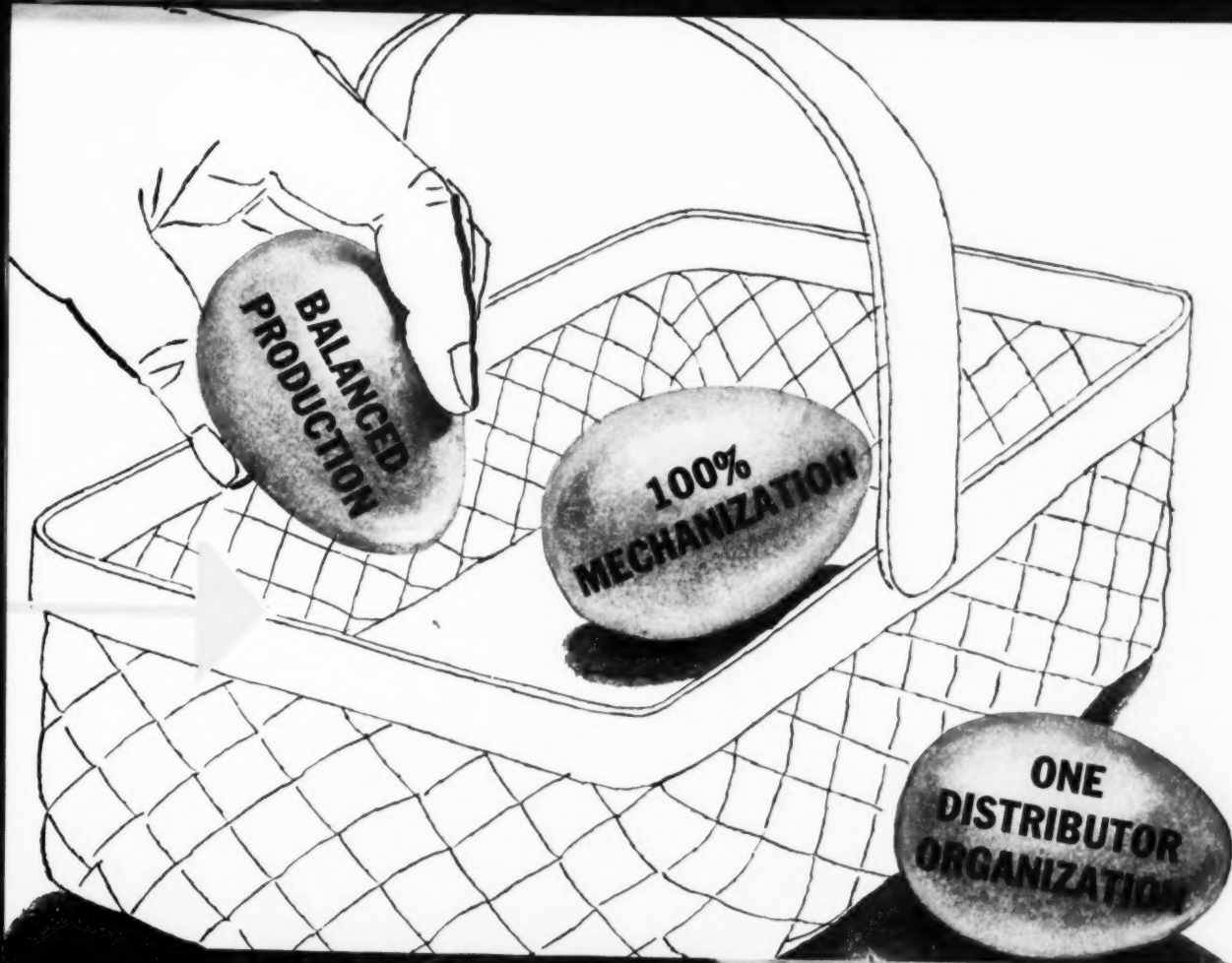
When you have the Blaw-Knox "Complete Package", backed by "package" economy advantages, you *know* you can clip schedule time and still make good profit. Think what that means when you're bidding against stiff competition!

Whether your next job is large or small, it will pay you to check what "Complete Package" efficiency can do for you. Your nearest Blaw-Knox distributor can help you make up a "Complete Package" to fit your job requirements, and explain every detail.

BLAW-KNOX

BLAW-KNOX COMPANY
 BLAW-KNOX
 EQUIPMENT DIVISION
 2101 Farmers Bank Bldg.
 Pittsburgh 22, Pa.
 Offices in Principal Cities

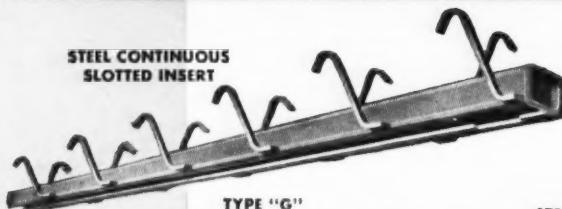




Gateway
Trade Mark

CONCRETE INSERTS

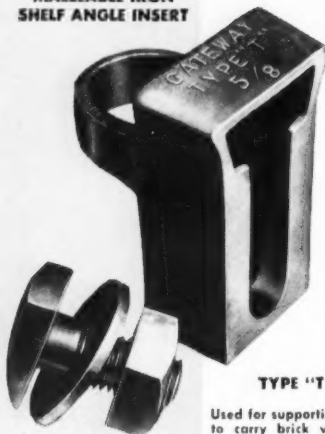
**STEEL CONTINUOUS
SLOTTED INSERT**



TYPE "G"

Made of special rolled steel sections. Stocked in lengths of 12", 24", 30", 36", 48" and 60". Made to receive special Type "W" half round nuts in four sizes. Also receives standard square head bolts.

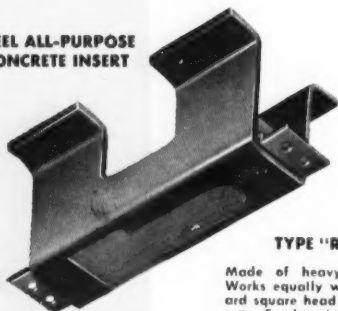
**MALLEABLE IRON
SHELF ANGLE INSERT**



TYPE "T"

Used for supporting Shelf Angles to carry brick veneer or other types of wall facings. Three nail holes insure rigid and secure fastening. Askew head bolt, nut and washer furnished with each insert. Two Sizes: $\frac{3}{8}$ " and $\frac{1}{4}$ ".

**STEEL ALL-PURPOSE
CONCRETE INSERT**



TYPE "R"

Made of heavy gauge steel. Works equally well with standard square head bolts or square nuts. For hanging shelf angles, shafting. Four Sizes: $\frac{3}{8}$ ", $\frac{1}{2}$ ", $\frac{5}{8}$ " and $\frac{3}{4}$ ".

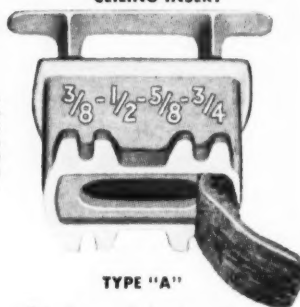
**STEEL
CEILING INSERT**



TYPE "E"

Made of heavy gauge steel and designed to carry ordinary working loads. One size only but will accommodate four different size Type "X" Nuts. 100% Clog-Proof. 4 nailing lugs.

**MALLEABLE IRON
CEILING INSERT**



TYPE "A"

Cast in one body size only. Designed to accommodate five sizes of Type "X" special Nuts: $\frac{1}{4}$ ", $\frac{3}{8}$ ", $\frac{1}{2}$ ", $\frac{5}{8}$ " and $\frac{3}{4}$ ". Four large nailing lugs. 100% Clog-Proof: Insert has felt glued on bottom to minimize seepage.

**Write for Catalog
C-52 for Gateway's
complete line of
Concrete Inserts
and Pipe Hangers.**

Manufacturers and Distributors

GATEWAY ENGINEERING CO. CHICAGO 51, ILLINOIS
3233 W. Grand Avenue

GATEWAY ENGINEERING CO. of Md. BALTIMORE 18, MARYLAND
2003 Lovegrove Street

GATEWAY COMPANY of Ohio CINCINNATI 25, OHIO
2836 Colerain Avenue

INDUSTRY RELATIONS

(Continued from page 88)

probably use at least the following items of equipment on the job:

| | |
|-------------------------|-----------|
| 5 tractor pulled scrap- | |
| ers @ \$25,000.... | \$125,000 |
| 2 bulldozers @ | |
| \$15,000 | 30,000 |
| 2 tractor-pulled tamp- | |
| ing rollers @ | |
| \$12,000 | 24,000 |
| 1 grader | 12,000 |
| 2 sprinkler trucks @ | |
| \$8,000 | 16,000 |
| 1 water pump..... | 1,000 |
| Service equipment. | 7,000 |

Total cost about. \$215,000

The investment of such large sums of money in construction equipment is not justified unless the equipment can be used approximately 8 months per year during its economic life, which is about 4 or 5 years. The contractor can afford to own this equipment because he expects to use it on more than one project. The cost is seldom justified for use on a single project.

A.G.C. Objectives Praised

Questions are sometimes raised concerning the integrity of contractors. I should like to dwell on this subject for a moment. It is extremely important to the owner of a project to be constructed. Most of the leading contractors in the nation belong to a national organization, The Associated General Contractors of America. This organization has as its motto, SKILL, RESPONSIBILITY AND INTEGRITY, and it is vigilant in seeing that this motto is preserved by its members. I have been associated with many of the officers of this organization, both national and local, and I have found them to be respectable gentlemen, a credit to any community. We have such men in our community. Doubtless, you have them in your community, devoting their time and money to civic activities, for the betterment of the community. Of course there are some exceptions, as in any profession, but they are relatively few. If you select a reputable contractor he will give you an honest performance.

I hope that these comments have given you a better understanding of the relations between the contractor and you. It has been a pleasure to discuss this subject for you.

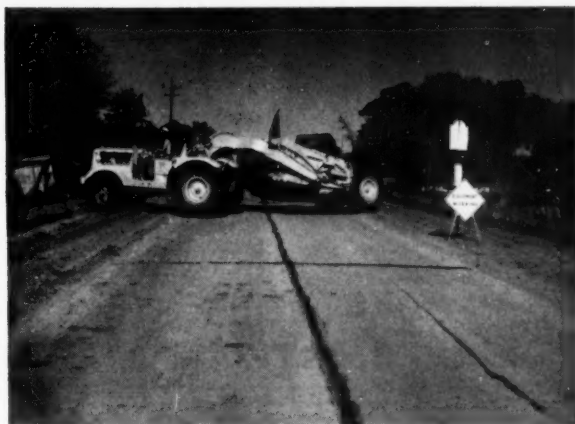
Uniform Signs for Highway Jobs Are Being Used in Missouri



First warning sign to approaching motorists



A.G.C. contractor Richard Quinn beside next sign



Sign at right warns of equipment working on road



Drivers advised to resume normal speed at project's end

» A STANDARDIZED system of signs, flags and flagging methods, to warn drivers of work underway on Missouri highways, is being put into effect by the joint efforts of the State Highway Commission and The Associated General Contractors of Missouri.

Project has a double goal—maximum safety for both automobile drivers and highway work crews, and “better housekeeping” at the job sites.

Pictures above, reading from the top, left to right, show in this order: first warning to approaching drivers; type and amount of work being done; signs of equipment at work; and the end of improvement operations.

At right is sample leaflet printed by The Colorado Contractors Association for its highway members, so that those engaged in road construction and repair projects can give the announcements to motorists and warn them of the work ahead.



To the Traveling Public



This project is being constructed by contract, and we ask that you bear with us while using the thoroughfare. We regret any inconvenience this work may cause you.

There is a great deal of heavy equipment on the job; please be on the lookout for it. Drive as carefully as possible, and the contractor will assist you to get through with the least possible delay consistent with safety.

When finished this project will be one of the finest of its kind and when you drive over it, after completion, we feel sure that any inconvenience you may be put to at this time will be offset by the pleasure, comfort, safety and satisfaction in its use later. Your cooperation is appreciated.

COLORADO CONTRACTORS ASSOCIATION, INC.

CONTRACTOR ON THIS PROJECT
JOHN DOE CONSTRUCTION CO.

DRIVE WITH CARE

LOOK HERE!

for

Today's Best Values in Heavy Construction Equipment

Now Available at the Downsville Dam Job Site, Downsville, N. Y.

All Available IMMEDIATELY. All Offered SUBJECT TO PRIOR SALE

27—Euclid Bottom-Dump, 13 c.y. Tractor-Wagon Units, Model 43FDY, G-M 671 and 6A Diesel Engines, with 58W Wagons, 21:00x24—24 ply tires.

10—Euclid Bottom-Dump 13 c.y. Tractor-Wagon Units, Model 67FDY, G-M 671 and 6A Diesel Engines, with 58W Wagons, 21:00x24—24 ply tires. New 1950.

8—Euclid Bottom-Dump 13 c.y. Tractor-Wagon Units, Model 38FDY, G-M 671 and 6A Diesel Engines, with 89W Wagons, 24:00x25—24 ply tires. New 1950.

38—Euclid Bottom-Dump 13 c.y. Tractor-Wagon Units, Model 71FDY, G-M Model 6A Diesel Engine, with 89W Wagons, 24:00x25—24 ply tires. New 1951.

9—Euclid Model 8TD Rear Dump Units; 56Y Bodies with side extensions, 16.8 c.y. capacity. Powered by Cummins Model 27575P Diesel Engines. New 1950.

5—Euclid Model 49FD Rear-Dump Units, with 48BY Bodies, 12 c.y. capacity, powered by G-M Model 671 Diesel Engines.

1—Euclid 3BV Loader, Serial BV-22; powered by Cummins HBID 600 Diesel Engine.

4—Caterpillar Model D8 Diesel Tractor-Dozers, all in 8R Series, Serial Nos. 8R9048, 8R8981, 8R8423, 8R8073.

1—Allis-Chalmers Model HD19H Tractor-Dozer, Serial 309. G-M Diesel Engine Mod. 671. Caterpillar 85 Dozer and Le-Tourneau heavy duty P.C.U.

2—Caterpillar Model 12 Graders, with scarifier and canopy top, powered by Caterpillar 9K Diesel Engines; Serial Nos. 9K1848 and 9K1501.

3—LeTourneau Model CIH Scraper Units, 12 c.y. capacity, Cummins HBID Diesel Engines: equipped with Model LP Scrapers. Serial Nos. C3T2887, C3T2886, C3T2826.

1—LeTourneau Model K30 Rooter, three-tooth, extra heavy, Serial R3032-K30B.

1—Rome Disc Harrow, 4 sections, 6 discs per section, 28" diameter; Model M-24-28.

Group of 4—Southwest Heavy Duty Double Drum Sheepfoot Rollers, Model TD2-102.

Group of 4—F. W. McCoy Heavy Duty Double Drum Sheepfoot Rollers, Model USHD-55.

1—Specially Built 3-drum "in line" Smooth Roller.

4—Rock Rake Attachments for Heavy Tractors, with LeTourneau push-arm connections.

2—Worthington 2-Stage Electric Motor Driven Turbine Pumps. Model #12QGH2, Serial Nos. 1349448-49. Capacity 1500 G.P.M. at 110' Head Operating at 1770 RPM. Driven by 50 HP U. S. Vertical Electric Motors 3/60/440 V. Serial #852148 and 852145. New 1950.

2—Worthington 2-Stage Diesel Engine Driven Turbine Pumps. Model #12QGH2, Serial Numbers 1349450-51. Capacity 1500 G.P.M. at 110' Head Operating at 1770 RPM. Driven by General Motors PTA-11111 Diesel Engine, Serial #130592 and 131789. Equipped with Worthington Right Angle Drive Gear Heads and Watson Spicer Flexible Drive with Couplings. New 1950. Has had stand-by use only.

All machines are in good mechanical and operating condition. They are ready to go to work immediately.

"GRIZZLY" EARTH-PROCESSING PLANTS

1—Complete "Grizzly" Earth-Processing Plant—Designed by Robins Engineers Division of Hewitt-Robins, Inc. to handle 1,350 c.y. per hour of "A" impervious type material. Full descriptive details on request.

1—Complete "Grizzly" Earth-Processing Plant—Designed by Robins Engineers Division of Hewitt-Robins, Inc. to handle 2,600 c.y. per hour of "B" pervious material. Full descriptive details on request.

Available also is a wide variety of miscellaneous construction tools and equipment; and large inventories of miscellaneous repair parts for the major groups listed, such as Caterpillar, Euclid, LeTourneau machines; and General Motors, Cummins and Buda engines.

Address inquiries to:

Peter M. Bianchi, Project Manager

BIANCHI, CENTRAL, MUNROE-LANGSTROTH, RUGO

A Joint Venture

Downsville, New York

Tel: Downsville 3-1101

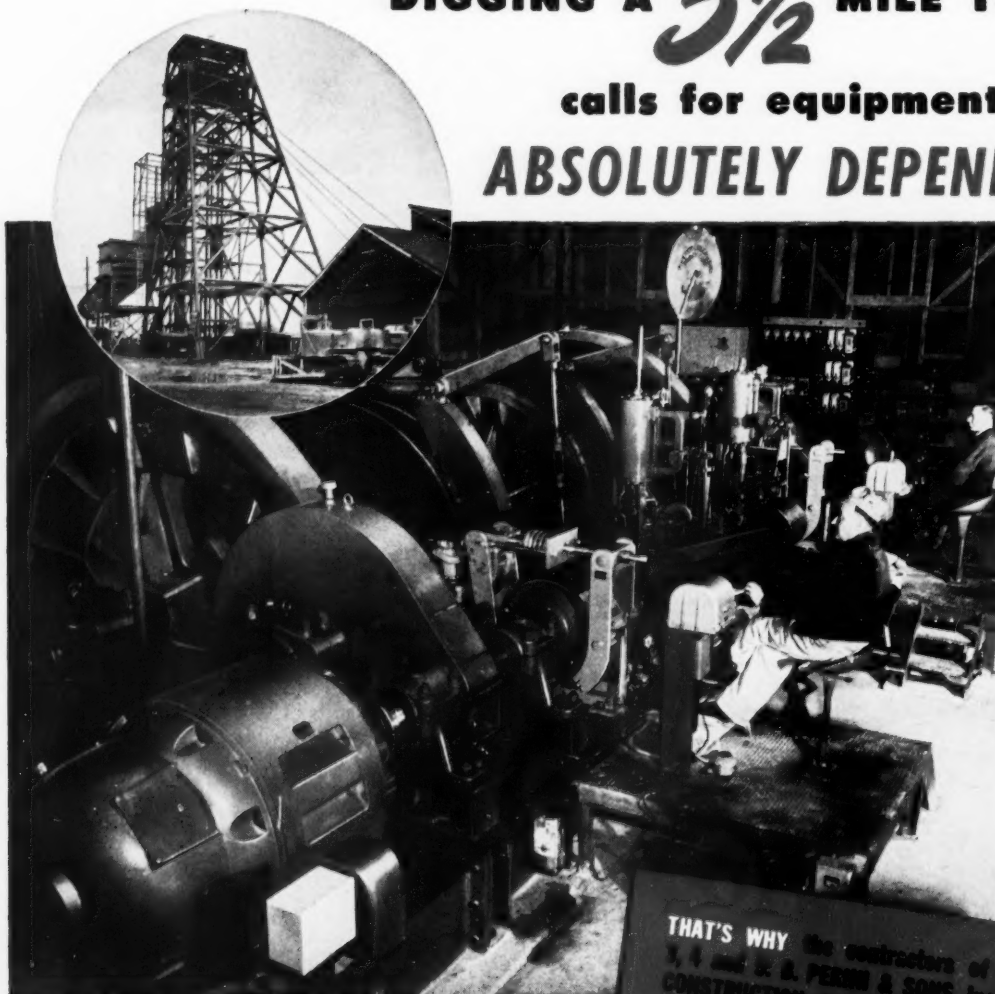


A Southern Railway freight train crosses a bridge near Burnside, Ky., constructed as part of a rail relocation project. Construction of Wolf Creek Dam about 35 mi. downstream necessitated the new structure. (See Page 97 for description of similar current projects.)

- **Expansion Plans Spark Another Big Railroad Construction Year.....Page 97**
- **Electric Power Plant Construction Tops 1952 Peak To Meet Goals....Page 101**
- **Contractor's Floating Field Office...Page 109**

DIGGING A **5½** MILE TUNNEL

calls for equipment that's
ABSOLUTELY DEPENDABLE



Lidgerwood Shaft Hoists in operation during construction of the hydraulic pressure tunnel for Ontario Hydro's Sir Adam Beck-Niagara Generating Station No. 2.

Because the job calls for absolute dependability, the contractors are relying on six LIDGERWOOD SHAFT HOISTS to raise an estimated 2,500,000 cubic yards of muck from 32,300 lineal feet of the 51' diameter tunnel. These hoists will raise and lower men, equipment, steel and other supplies, so they *must* deliver top performance. LIDGERWOOD SHAFT HOISTS are a product of the 200 years of combined experience of the SUPERIOR-LIDGERWOOD-MUNDY CORPORATION.

For descriptive literature write to:

THAT'S WHY the contractors of section
1, 4 and 5, A. PEERIN & SONS, Inc., WALSH
CONSTRUCTION COMPANY and CANADIAN-
AMERICAN CONTRACTORS chose

6 LIDGERWOOD SHAFT HOISTS

to handle cages and dumping skips for
Shafts 3, 4 and 5 of the Niagara hydraulic
pressure tunnel being built for the Hydro-
Electric Power Commission of Ontario,
(Canada).



Superior-Lidgerwood-Mundy Corporation

MAIN OFFICE AND WORKS — SUPERIOR, WISCONSIN
NEW YORK OFFICE—7 Day St., New York 7, N. Y.

Reprint of Advertisement Appearing in Trade Journals



Big Caterpillar equipment looks small on the wide open spaces of Wyoming where Morrison-Knudsen is completing grading for the 42-mi. Union Pacific cut-off. Below is one of the cuts on the project, the deepest of which was 140 ft. through solid red granite.



Pile driving for new concrete piers for a railroad bridge near Pasco, Wash.



Ambitious Expansion Planning Is Creating Another Peak Railroad Construction Year

» MEMORIES of America's great railroad building era 75 years ago have been revived by a new surge of that type of construction. Dozens of railroads across the country are carving out new routes, building new terminals, erecting big diesel repair shops and laying out complete new yards.

The greatest difference about the current boom is that general contractors with huge steam shovels, bulldozers and scrapers are gouging out in hours, today, routes which would have taken the pioneers many tedious days with their mule-drawn dump carts. With mammoth equipment and modern methods they are cutting through hills and bridging gaps that the old-timers had to go around. Some of the big freight terminals and locomotive shops under construction now dwarf the early depots and roundhouses of the late 1800's.

1,700 Jobs Approved in '52

The extent of the railroaders' building ambitions for this era is apparent in figures recently released by the Defense Transport Administration. According to the federal agency, some 1,700 projects representing a \$904-million investment were approved in the one year ending last October. Enough work was completed in 1952 to make it the top railroad construction year since 1930 and indications are that this year's construction ex-

penditures will continue high. Some \$645 million is reportedly now on the books for more than 1,000 projects.

How much of the total volume is being done by general contractors cannot be determined easily, but substantially large contracts are being let by most of the roads, usually for the earthmoving, bridge construction, terminals, shops and other buildings. The railroads' forces handle much of the track laying, ballasting and maintenance of way.

Much Relocation Work Tackled

Last year the largest construction project in North America was a railroad job—Canada's 350-mi.-long Quebec, North Shore & Labrador Railroad running through Labrador from the St. Lawrence River to newly discovered iron ore deposits in the north. There, hundreds of workers are running the new line through virgin territory, under cold and unpleasant weather conditions.

In this country, some of the larger new line projects include the 42-mi. relocation for the Union Pacific Railroad outside Cheyenne, Wyo., and a 33-mi. cut-off in western Iowa on the Rock Island Railroad.

Morrison-Knudsen, A.G.C., of Boise, Idaho, tackled the grading—a substantial portion of the U. P.'s Wyoming project. The \$16-million improvement represents the biggest line change on the road since the driv-



Before relocation of the Southern Pacific Railroad's line around Lookout Point Dam on the Willamette River in Oregon could be accomplished the contractors had to tackle some heavy grading, including this deep cut.



After completion of the cut. The \$20-million project has taken several years to complete and required the services of 19 separate contractors. Two river crossings and numerous drainage structures were constructed.

ing of the golden spike 82 years ago. To eliminate a heavy upward pull out of Cheyenne to the summit of Sherman Hill, Morrison-Knudsen cut and filled a new route skirting the 8,014-ft. peak. Two of the fills are 150-ft. high across deep valleys and the deepest cut is 140-ft. through solid red granite. The contractor installed the hundreds of culverts required, also—some of them 15 ft. in diameter.

Almost 7 million cu. yds. of earth and rock was moved. Morrison-Knudsen's eight crews totalling about 600 men working miles apart on the 42-mi.-long line, kept in contact by jeeps equipped with two-way radios.

Morrison-Knudsen is currently grading for another 10 mi. of line change west of Rawlins where 75-ft. fills and 100-ft. cuts are necessary. Approximate cost will be \$2,352,400. Section houses, bunkhouses and water tank tower foundations are other construction items under contract.

In western Iowa, Orville Eblen, A.G.C., of Atlantic, Iowa, is gouging out a 33-mi. cut-off for the Rock Island Railroad. Four other firms,

doing the bridge work along the route, are List & Weatherly Construction Co., A.G.C. of Kansas City, Mo., Alexander & Repass, A.G.C., of Des Moines, Arcole Midwest Corp. of Evanston, Iowa, and Iowa Bridge Co., A.G.C., of Des Moines.

Dams Force Relocations

Several line relocation projects have been necessitated by construction of dams and reservoirs near existing lines. One of these is an 8.2-mi. relocation of the Missouri-Kansas-Texas Railroad around the Fort Gibson Dam near Wagoner, Oklahoma. Most of the \$2-million job is being tackled by Mike E. Gillioz of Monett, Mo., on contract with the Corps of Engineers, which is responsible.

A similar task was let to 19 different contractors for relocation of the Southern Pacific Company's rails around Lookout Point Dam on the Willamette River in Oregon. The \$20-million project is finished now.

It included two major steel bridges built across the Middle Fork of the Willamette River—each about 800 ft.

long, two smaller steel bridges and a highway underpass. Particularly heavy grading was performed, particularly in the reservoir area where fills extending into the pool had to be heavily blanketed with riprap.

Two viaducts were avoided by construction of large fills. One was nearly three-quarters of a mile long, 110 ft. high and contained 1,750,000 cu. yds. of material. Drainage structures required were numerous and ranged from corrugated metal pipes to four 19½-ft. reinforced concrete arches, 330 ft. long.

Some of the A.G.C. contractors handling grading, tracklaying, bridges, buildings and utilities on the big job were McNutt Bros. of Eugene, Ore., K. L. Goulter & Co. of Dexter, Ore., Strong & McDonald of Tacoma, Wash., Miller & Strong of Eugene, Utah Construction Co. of Salt Lake City, F. W. Case of Van Nuys, Calif. Portland A.G.C. contractors engaged included General Construction Co., E. C. Hall & Co., Guy F. Atkinson Co., Lee Hoffman, McKel, Inc., and E. E. Settergren.

Another view of the Columbia River Railroad Bridge near Pasco, Wash., for which Kansas City Bridge Co., A.G.C., and Massman Construction Co., A.G.C., both of Kansas City, Mo., constructed new piers. The contractors will relocate several spans and raise the entire bridge 4.2 ft.

The Rock Island Lines is running a new route through western Iowa. Contractor for the substructure of this highway crossing is List & Weatherly, A.G.C., Kansas City, Mo. The steel superstructure will be built by E. A. Kramme Co., A.G.C., Des Moines.



HEAVY • RAILROAD

The Corps has awarded contracts totalling about \$8.7 million for relocation of the Chicago, Milwaukee, St. Paul and Pacific Railroad around Fort Randall Dam in South Dakota. A \$6.5-million bridge, 8 mi. of new track, a depot and yards are elements in the project.

The Missouri Pacific Railroad has been forced to relocate its route near Houston as water rising in the newly constructed San Jacinto reservoir would inundate the existing line. Gulf Bitulithic Co., A.G.C., Houston, has tackled the grading phase of the project and Tellepsen Construction Co., A.G.C., Houston, is completing girder substructure work on the high-level bridge which will carry the railroad across the reservoir. The Texas Construction Co. has the contract for trestle work on the \$2-million job.

Work for Builders Involved

The railroads have more than new lines in mind and under construction. Besides the cut-offs and relocations which have meant large contracts for the heavy construction contractors, there are hundreds of projects involving buildings—stations, freight terminals, repair shops and switch yards. Some of these are multi-million-dollar facilities but many are going to medium-sized and small builders.

In Chicago, S. N. Nielsen Co., A.G.C., has a \$1-million contract award to construct a diesel house for the Chicago, Rock Island & Pacific Railroad and a \$100,000 award to erect a passenger station for the Chesapeake & Ohio.

The diversity of projects envisioned by some of the large railroads in this boom is reflected in the pro-

gram of the Pennsylvania Railroad. Projects costing \$116 million were underway as of the first of the year and others are continuously being planned. These include such ambitious undertakings as a new freight classification yard and related facilities at Conway, Pa. The cost—\$34 million. A \$27-million passenger station is well underway in Pittsburgh, and nearing completion in Philadelphia is a \$20.2 million passenger station improvement program.

The New York Central Railroad completed or furthered work in 1952 worth \$107 million. A main-line bridge over the Harlem River in New York City is one of the current major projects. About 180,000 riders in 600 trains a day pass over the present crossing being replaced by the new structure.

While the proportion of today's rail

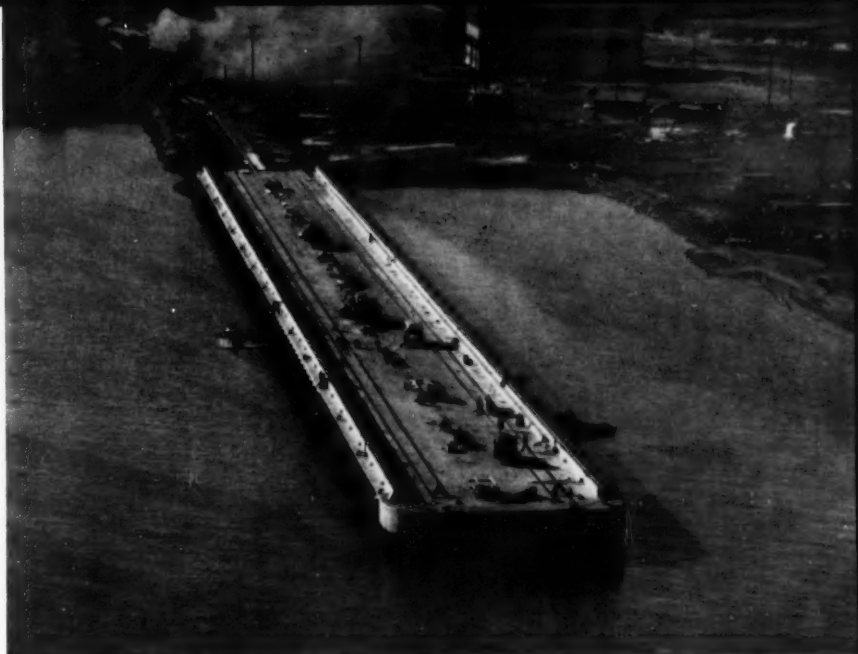
Certificates Spur Expansion

Much of the current railroad construction is being stimulated by the certificates of necessity program under which the federal government grants tax relief for approved projects. The Office of Defense Mobilization recently boosted to \$500 million the value of expansion it would encourage in this way.

expansion only reflects the historic 1860's, the multiplicity of projects and their variety is keeping many contractors engaged in challenging work. In this era, as in previous ones, they are helping to push the rails across the rivers, the mountain ranges and the plains to link the nation by routes more speedy and more level than ever before.

View of substructure construction on San Jacinto Reservoir crossing made necessary by relocation of the Missouri Pacific Railroad route. Some 1,518 ft. of deck plate girders and 2,400 ft. of reinforced concrete pile trestle across the valley are being put in by A.G.C. contractors.

Locomotive shops and servicing facilities constitute the second largest category of improvement work planned for 1953. The three-level working area shown below is built into the Glenwood shop of the Baltimore and Ohio Railroad. Many building contractors are working on stations.



The Pennsylvania Railroad's new ore unloading pier under construction on the Delaware River at Philadelphia. The \$9-million project is scheduled for completion next year.



GULF PRODUCTS *and* **FINE SERVICE**
keep equipment rolling
on New York's "Superpier" Project



Merritt-Chapman & Scott Corporation, and Corbetta Construction Company, Inc., both of New York City, share the contract for construction of the substructure and deck for new Pier 57 at 15th St. on New York City's west side. Unique design of the pier includes three watertight concrete boxes, the buoyancy of which will support 90% of the total dead load. This photo shows the boxes in place, with Manhattan in the background.

New standards of efficiency and ingenuity were required on the part of the contractors to construct this new and larger pier on the site of old Pier 57.

They licked many a tough problem, and the story of this job, as published in leading construction journals, is well worth reading. However, they didn't have fuel or lubricant problems, because they selected the petroleum products identified by the familiar Orange Disc.

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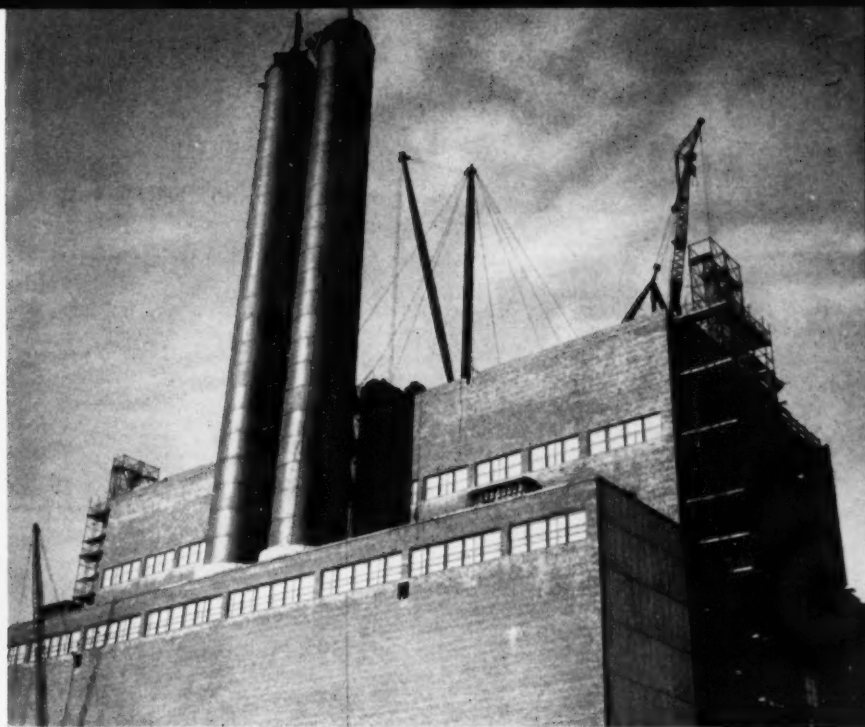
Construction expenditures for electric power from 1945 to 1953 show phenomenal increase as private utilities, municipalities and the federal government strive to meet the needs. Some \$4.2 billion will be spent in '53.

» CONSTRUCTION got underway this spring on what will become two of the largest electric power plants in the United States. Both of the huge installations going up on the Ohio River are being built to supply power for a new atomic energy plant in Pike County, Ohio.

Although together they will cost \$400 million, the two Ohio plants are only a fraction of a vastly greater expansion of the nation's electric power capacity. Construction totaling \$3.7 billion was completed last year for such plants, for transmission and distribution lines and for substations. This year's volume will run 12% higher, according to the publication, *Electrical World*, which predicted in January that the investment in new construction will hit \$4.2 billion in 1953.

Demand Spurs Construction

There are several reasons for the ambitious building programs in this field. The normal growth of the nation, both in population and in industrial might, requires progressively more planning for new hydroelectric and steam power facilities. Modernization of farms is putting an additional drain on power supplies as farmers wire for electric lighting and equipment. Industrial expansion, particularly in the Northwest and South, has stimulated power development and posed the threat of serious shortages in several other areas. The defense



A \$55-million generating station for Consolidated Edison in New York City is currently being constructed to produce 1 million kilowatts. Forty-one contractors and subcontractors are on this job. It is one of the largest of the dozens of electric power installations going up across the country. This type of construction is expected to hit a peak this year as industrial expansion demands power.

Construction of Electric Power Plants to Meet Expansion Goals Tops 1952 Peak

build-up has given added impetus to this type of construction, and the atomic energy program is requiring great amounts of electric energy.

Not Built Overnight

It takes about three years to plan, build, equip and put into operation a steam plant. Large hydroelectric plants require five and six years. This long lead time, defense officials have found, forces them to encourage construction of plants and transmission lines years before their actual need. Tomorrow, they feel, electric energy will become one of the most serious bottlenecks in the U. S. economy unless today's construction goals are set high.

Power facility construction is contracted mainly by three groups—the private utilities, the federal government and local governments.

\$8-Billion Goal Set

Private electric companies spend the most. In 1952, the National Association of Electric Companies reveals, private utilities spent 70% of the total \$3.7 billion. They spent over \$10 billion from 1945 through 1951 for new construction and plan to spend another \$8 billion for new facilities in the three years 1952-1955.

The federal government expends huge sums for power construction through such bodies as the Tennessee Valley Authority, the Bonneville Power Administration, the Southwestern Power Administration, the Bureau of Reclamation and the Corps of Engineers. Of last year's \$3.7 billion, about \$700 million (18% of the total) was the federal government's investment in electric power.

Besides the power plant construction undertaken by the private utilities and the federal government, municipalities, states and power districts are making their own additions to existing systems. Together, their building outlays constituted about 12% of the \$3.7 billion spent last year.

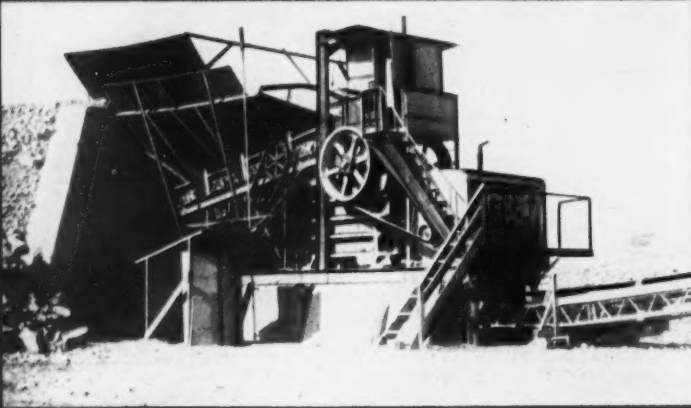
Controversy Still Rages

Controversy between private utilities and the federal government over who should build the electric power facilities has been a feud of long standing. In several areas, both have been vying for authority to begin large projects. One of these is the proposed further development of hydroelectric power at Niagara Falls. Five New York electric companies are reportedly "ready, able and willing" to finance and construct new facilities there at a cost of \$390 million. (The

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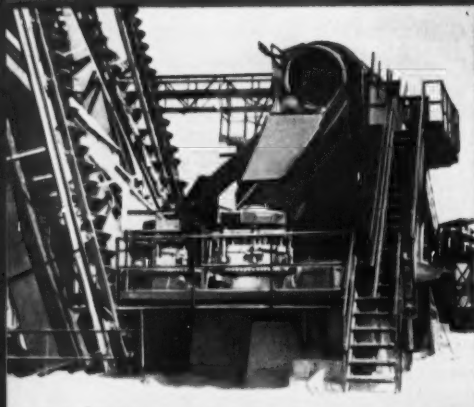
Aggregate plant built Conner Hill Dam, Tennessee



200 tons per hour gravel plant in Wisconsin



2,500,000 tons of aggregate for Horner Dam

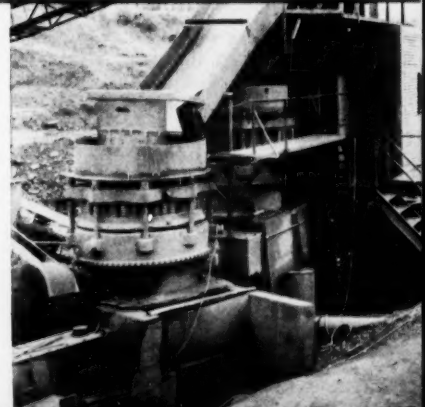


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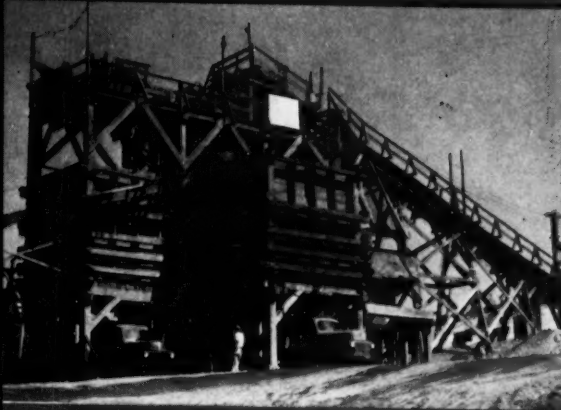
Crushing ore in Minnesota iron mine

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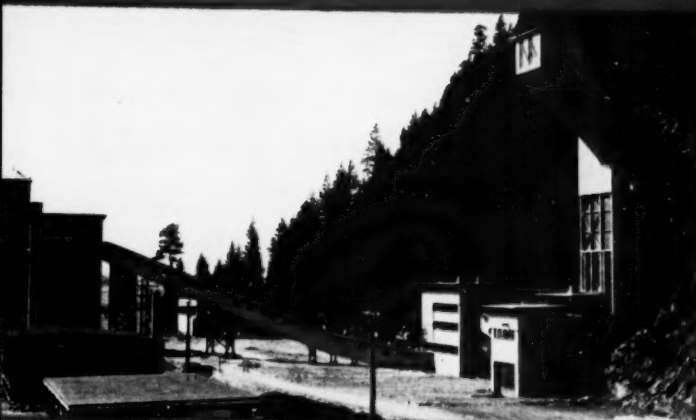
1,000-1,200 tons per hour capacity sand and gravel plant, Long Island, New York



Aggregate plant for El Mirador Tunnel, Mexico



Combination quarry and gravel plant in Indiana



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Telsmith helped build this Italian dam



Quarry plant of Warwickshire, England



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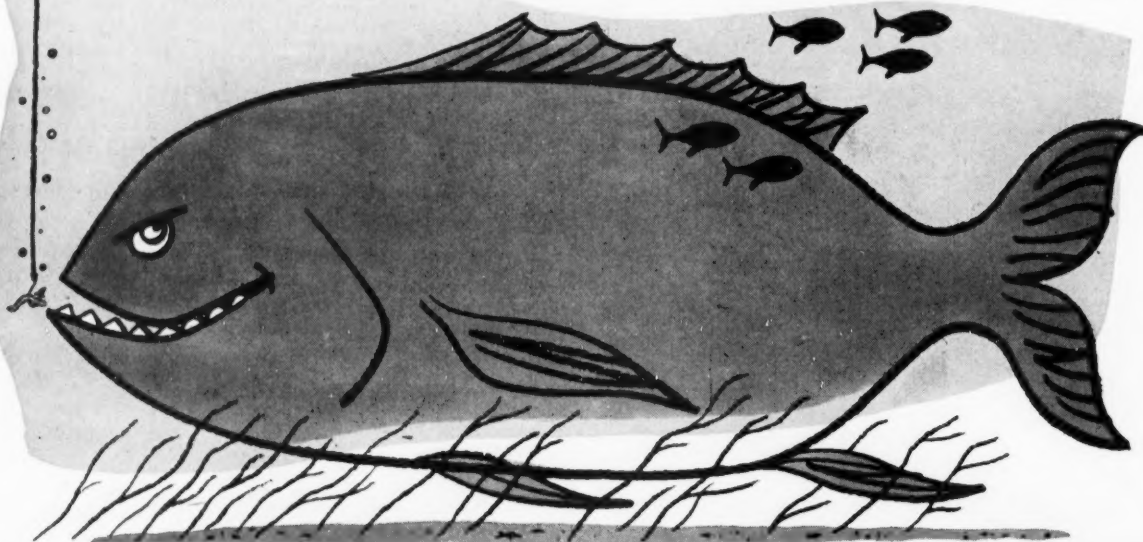
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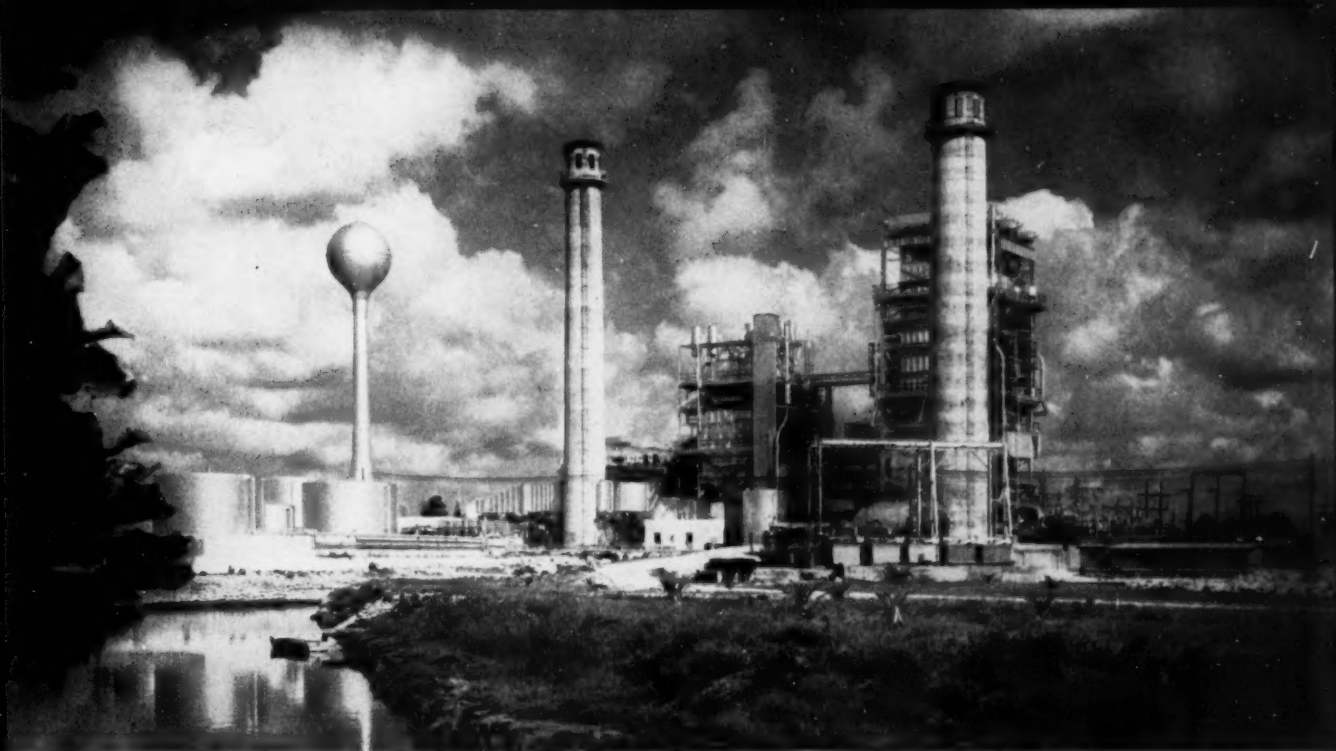
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same firms now serve about 90% of the state's area and population and plan to spend on other expansion this year some \$220 million.)

Last month the Senate Public Works Committee approved a bill which would allow the private development of the Niagara power potential.

Until Secretary of Interior Douglas McKay resolved the conflict recently, there was bitter controversy over whether the Idaho Power Co. or the federal government would direct development of power on the Snake River in Oregon and Idaho. The Department of the Interior under former Secretary Oscar Chapman planned to invest \$357 million in construction of the proposed Hells Canyon dam and power plant. The Idaho Power Co. has had plans for some time to install units on the same stretch of river but has been unable to obtain approval because of the intervention by the Department of Interior.

In May, Secretary McKay withdrew opposition to the private utility's plans, and application's are now being considered by the Federal Power Commission for the series of dams and power plants the Idaho firm hopes to build. About \$176 million will reportedly be invested in the facilities.

McKay Urges Local Control

The Secretary stated his mind recently on the issue in a speech before the American Power Association, an organization composed mainly of public power advocates. He advocated that local groups lay out their own programs for power development and

come to the federal government only if their plan proved larger than they could handle.

On the other hand, he saw a place for federal direction of particular projects. "I don't agree with the protests of some people who say the government should get out of the power business," he said. "Turning back all of our federal power systems to private enterprise in my judgment is out of the question. . . . We will continue within the limits that the national budget will permit with construction of such . . . projects as are economically feasible and fall within the category of federal projects."

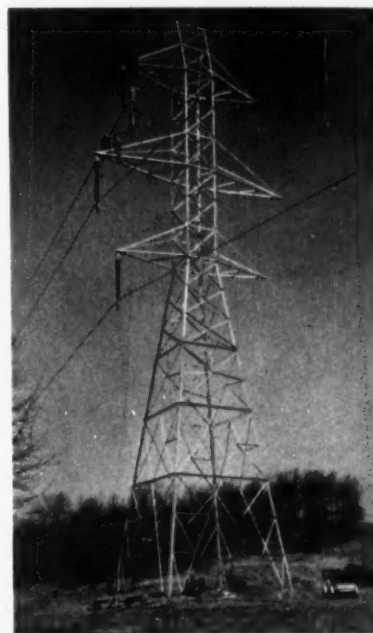
Federal Share Is Cut

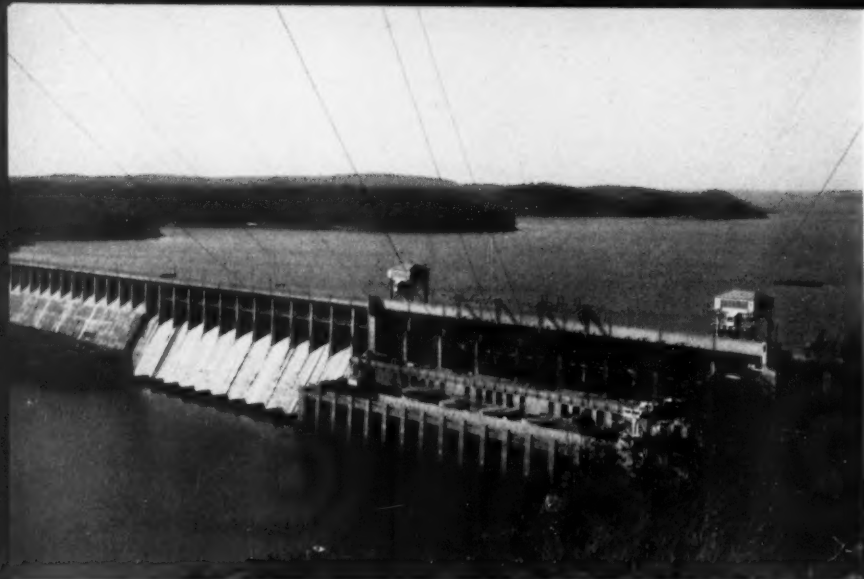
The House Appropriations Committee in April had something to say about federal participation in power plant and line additions, when it whittled down the Department of Interior's appropriation 17% below Secretary McKay's request. The committee approved a figure of \$404 million although McKay had asked \$484 million and Truman \$607 million. Much of the cut came from deletions of power transmission line projects the Department was proposing to tackle. The Congressmen declared that the department should let private utilities handle transmission of power from government-built plants and set forth this general policy:

"With respect to construction activities, essential and completely justified projects in the construction stage shall be carried to completion to avoid waste of federal funds, but wherever possible, private enterprise shall be taken

Pride of the Florida Power & Light Company is its new Cutler Power Plant, largest in the state. The utility firm plans to spend \$332 million in 10 years to triple its capacity. Ten large units will be installed. Florida expects a 50% population rise in that period. Florida Power & Electric, which serves about two-thirds of the state, has 10,471 mi. of transmission and distribution lines and more under construction.

Section of American Gas & Electric Company System's super transmission network which carries 330,000 volts and cost \$25 million. Hoosier Engineering Co. and Collier Construction Co., two Ohio firms, were general contractors on one section.





Under construction are two additional units at Union Electric of Missouri's Bagnell Dam plant on the Lake of the Ozarks. Stone & Webster, A.G.C., New York, has the construction contract. This firm has spent \$192 million on construction since 1948 and plans to expend \$151 million more by 1957.

into partnership to build, own and operate that part of each project that can be handled by private ownership under conditions that protect the interest of all the people. In all future projects for new starts which include transmission lines, private enterprise shall be urged to take the initiative in constructing, owning and operating such works before money is made available for federal construction."

Heavy Building Plans

That the private utilities are eager to build where power demand justifies the additional facilities is apparent in goals set by the industry. In the East North Central States—Wisconsin, Illinois, Indiana, Ohio and Michigan—the private utilities expect to triple the 1945 generating capacity of the region by 1960. In the East South

Central States—Kentucky, Tennessee, Mississippi and Alabama—the output will be quadrupled in the same period. Other sections, although not quite as ambitious, have heavy construction programs in mind.

Individual firms have high hopes for the future. The American Gas and Electric Company System, a holding company for several power utilities, is engaged in the greatest construction program in its 47-year history and probably the largest of any concern in the electric utility industry. As of last January the firm had invested almost \$474 million in new construction since 1947. It plans to put out another \$206 million this year and next—the bulk of it this season.

Major construction projects for the system now underway are three new plants in the Ohio River Valley—a

\$55-million plant and two \$45-million plants—and a 330,000-volt transmission network which will be the highest-voltage power line operating commercially in the United States. General contractors for the power companies have been the Sollitt Construction Co., A.G.C., South Bend, Ind., and the George F. Hazelwood Co., A.G.C., Cumberland, Md. The Sollitt firm has built two other generating stations for American Gas and Electric Company System since the war, costing \$23 million and \$66 million.

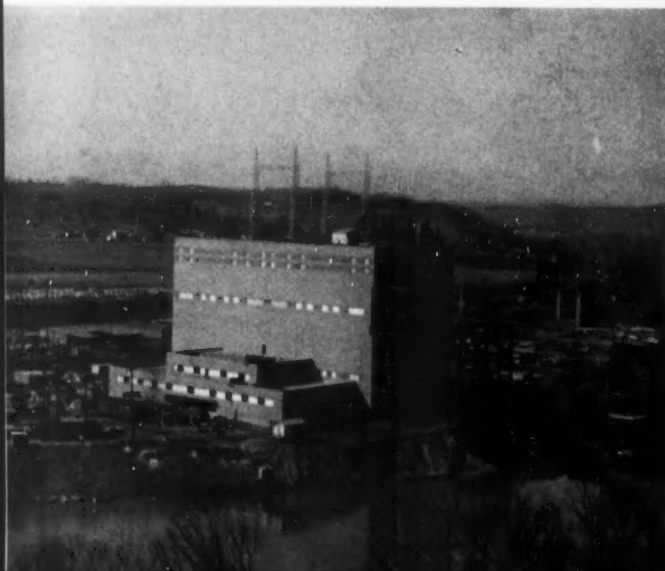
Numerous new office and service buildings are being put up throughout the vast system of the utility company.

The Southern Company system which comprises four utility companies is another enterprise which is making large construction expenditures to expand its facilities in southern states. During 1953 and 1954, the system will spend \$192.3 million for construction. Of this, \$99.6 million will be for additional electric generating units and related substation equipment and outgoing lines, \$25.9 million for transmission lines and substation additions, \$58.2 million for distribution system additions and \$8.6 for other additions.

The building activity in this field reflects the general optimism of its leaders. They are well aware of the growing needs of the nation—its industry and its people—for more and more electric power. The estimates of future demands upon the industry are provoking serious consideration and stimulating a record-breaking volume of such construction.

North of Beverly, Ohio, the Ohio Power Co. has this Muskingum River Plant under construction. Ohio Power is part of the American Gas & Electric Company System which is spending \$206 million this year and next for construction.

Excavation for Unit 3, a 200,000-kw generating unit being installed at Tanners Creek Plant by the Sollitt Construction Co., A.G.C., South Bend, Ind., for the Indiana & Michigan Electric Co., another A.G.C. subsidiary.





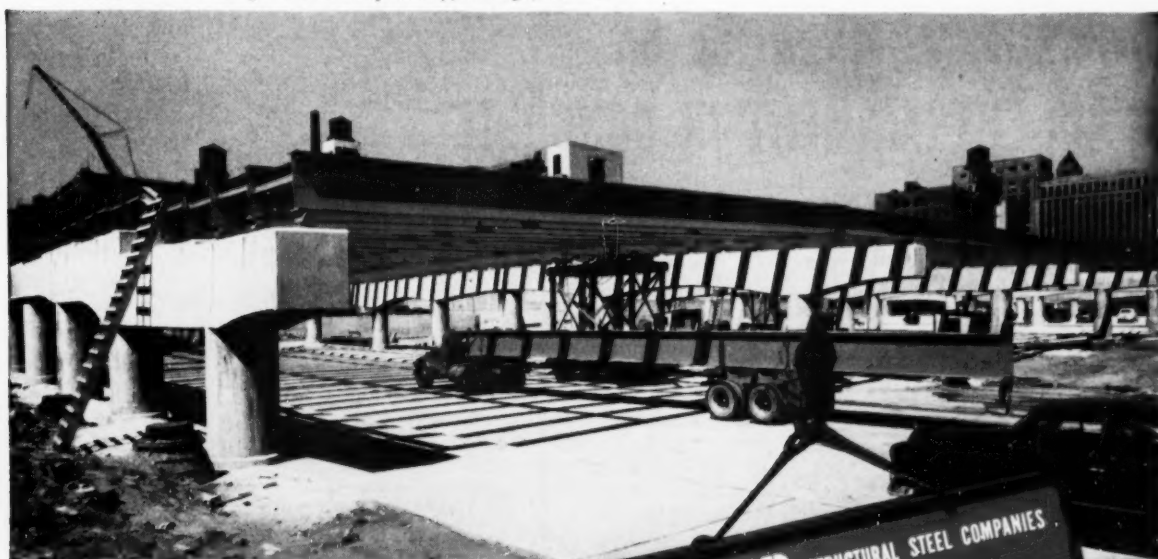
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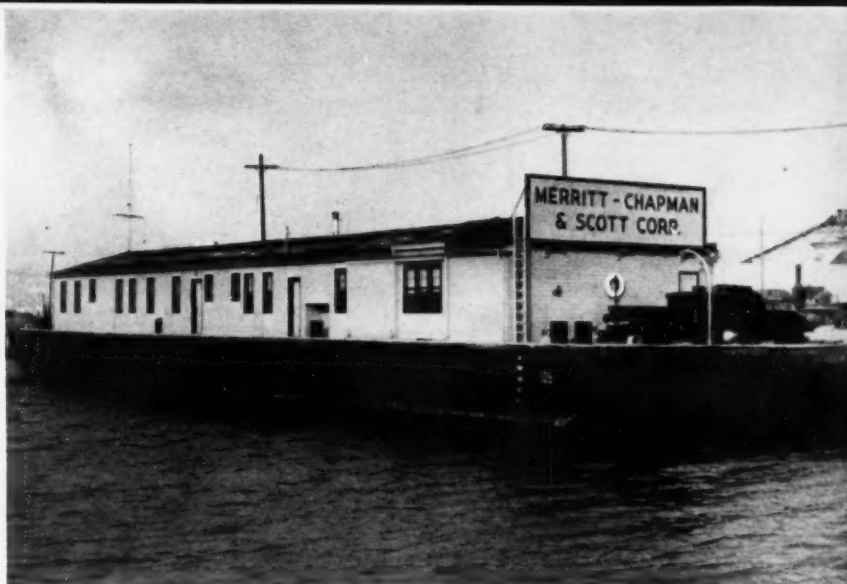
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Office of Project Manager B. F. Sanders on the floating headquarters barge.



Merritt-Chapman & Scott's floating field office, from which contact can be maintained with shore installations and all floating equipment. Another barge carrying machine and carpentry shops completes the marine headquarters.

Floating Field Office for Marine Contractor

» BUILDING and equipping the field offices and workshops required on a major construction project is frequently an involved and time-consuming affair. Merritt-Chapman & Scott, A.G.C., New York, has found a solution peculiarly suited to its marine construction activities. It is a headquarters layout which includes a floating field office and a floating workshop that can be towed from site to site as occasion demands.

The floating field office contains fully equipped facilities for supervising the job. Telephone switchboard and filing systems are standard equipment aboard. A drafting room and a two-bed hospital are other built-in facilities. The workshop barge contains everything needed in its carpentry and machine shops.

Two-Way, Ship-to-Shore Radio

One of the most valuable assets of the floating offices is the two-way ship-to-shore radio-telephone net, which keeps the project manager, Burton F. Sanders, in constant touch with every key piece of floating equipment. When work is spread over the heavily travelled waterway, subject to fog and other weather hazards, easy communication is vitally important.

Like so many other innovations in the construction industry, the floating field office and workshop were born

out of necessity. Both were the brain children of William Denny, now executive vice president and general manager of M-C & S. Several years ago, when the contracting firm was at work on the 14th St. Bridge in Washington, D. C., there was no site available for shoreside installations. Mr. Denny, then project manager, solved the problem by converting two former U. S. Navy bomb carriers—each 170 ft. long and 34 ft. wide—into a set of completely equipped offices and workshops.

Now on Hudson River Job

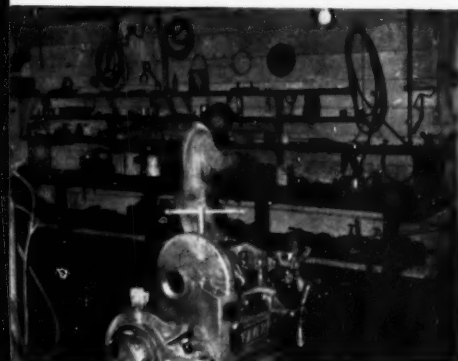
The idea worked out so well that the floating facilities were sent to serve other heavy construction and marine projects, including the Delaware Memorial Bridge and the Elizabeth River Tunnel. Now, the water-borne "spread" is moored at the site of the Tappan Zee Bridge on the Hudson River, where the contracting firm is building pier foundations for the 3-mi.-long structure.



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- **Urban Redevelopment Projects
Approach the Building Stage Page 113**
- **Increased Skyscraper Construction
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THE CONSTRUCTOR, JULY 1953

BUILDING

» IN CHICAGO, the Turner Construction Co., A.G.C., New York, is completing construction of two 12-story structures which will contain 238 apartments. They are part of a billion-dollar plan to redevelop the city's slum areas.

In Detroit, the O. W. Burke Co., A.G.C., Detroit, is beginning a \$30-million housing project which will cover a 21-block area. The undertaking is the first to be launched under the city's Urban Redevelopment Act.

In Washington, D.C., the Bush Construction Co. of Roanoke, Va., is leasing more than 24 acres of land in the capital's slum district and will put up 900 units in row houses, garden apartments and 12-story structures.

Federal Aid to 253 Cities

These are three examples of a type of construction that is finally coming to pass as city after city reaches the building stage in its urban redevelopment program. Speaking of the speed with which slums are being cleared a writer in *Nation's Business* declared recently, "For the first time in American history, there now appears to be sound basis for hope that slums may disappear in U. S. cities."

By arrangement between municipalities and the federal government, final planning and clearance for 137 urban redevelopment projects is underway in 88 different localities. Another 165 localities have applied—and their requests have been approved—for federal funds which will enable them to plan preliminarily the difficult task of rebuilding run-down residential and commercial districts.

\$1.5 Billion Set Aside

Until recently, cities have been held up, not only for lack of funds to purchase slum sites they wished to reconstruct, but by the slowpaced procedures involved in condemning the land, relocating families and gaining approval of plans. The federal-aid measure, approved by Congress several years ago, is coming into play now, and the result should be actual construction contracts in a number of cities soon.

Congressional approval for the federal government to assist cities consists of two measures: (1) The au-

The new apartment houses in this newly completed Philadelphia redevelopment were built by United Building Construction Co., A.G.C., Philadelphia, on a contract of \$2,049,500.



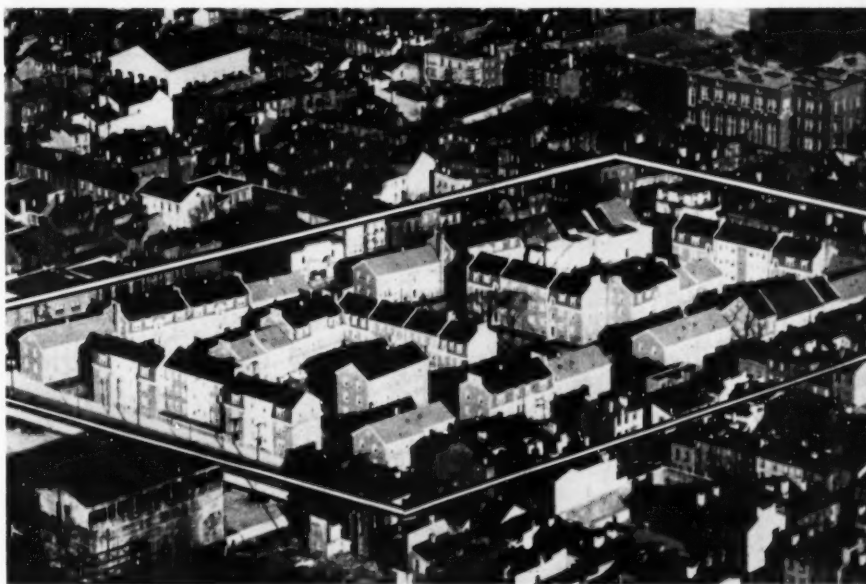
An early redevelopment project in Detroit now complete. Steidle-Wolfe, A.G.C., Fremont, Ohio, put up 672 of the 1,010 apartments in this project.

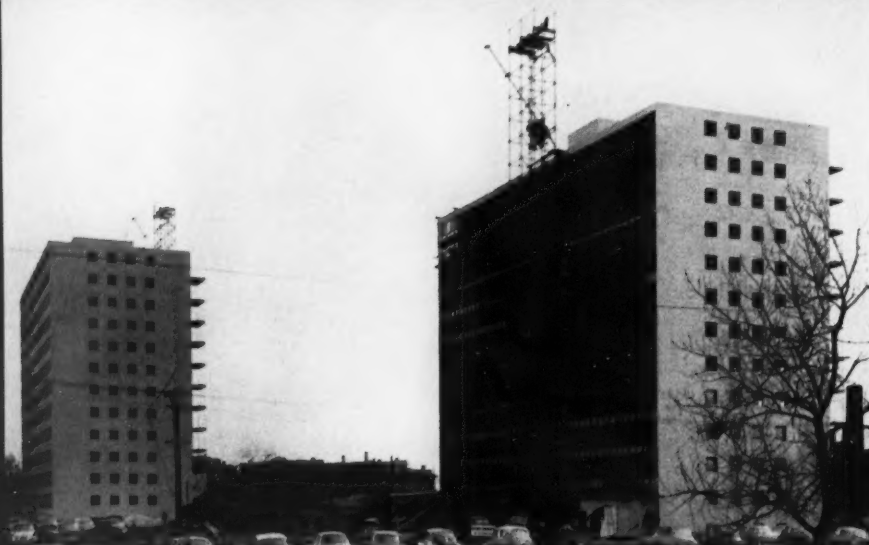
Redevelopment Plans Near Building Stage

• Final Planning Underway on Many Projects This Year

thorization of \$500 million with which to subsidize two-thirds of the loss suffered by a community in buying costly land and reselling at a reasonable price to private developers, and (2) the authorization of \$1 billion to lend to cities to finance planning, land purchase and clearing. Some \$230 million of the half-billion-dollar capital grant authorization has already been reserved for the projects which 253 cities and towns want to undertake.

In return, communities wishing to participate in the program, must prepare a master plan for development of an entire locality, submit a practical procedure for temporary relocation of families displaced during construction and assure permanent housing after redevelopment that the displaced families can afford. Another paramount consideration is that maximum opportunity must be provided for private enterprise to participate in actual reconstruction of the section.





Turner Construction Co., A.G.C., New York, is finishing construction of these two 12-story buildings, part of a Chicago redevelopment being undertaken by the New York Life Insurance Co. Some 101 acres are being reconstructed in an ambitious plan which will eventually cost \$23 million.

Ordinarily, a city agency condemns and purchases the district to be rejuvenated, clears it, and resells or leases the land for redevelopment to a responsible bidder. The municipality provides the needed utilities and streets.

Private Investors Tackle Building

It is such arrangements that are making possible the projects now being contemplated in so many of the nation's cities. This year and 1954 should see a number of the communities which have applied for federal aid ready to turn over their redevelopment areas to private enterprise for construction of homes, office buildings, stores and industrial plants. In some cases public works projects, tied in with the master redevelopment program, will get under way at the same time.

Not all the urban redevelopment ventures are housing projects. Of the federal-aid projects now being finally planned and executed, only about a dozen are solely housing and slightly over half predominantly residential. The balance will be predominantly industrial and commercial.

Nor are the projects restricted to contractors located near the large metropolitan centers, as might be assumed. Nearly two-thirds of the 253 communities participating in the federal-aid program have populations of less than 100,000 and a number of these have populations of less than 25,000.

Redevelopment in Chicago

Typical of the larger cities with ambitious redevelopment ideas is Chicago. Since 1948, the municipality,

with its 23 sq. mi. of blighted districts, has speeded buying, clearing and reselling huge tracts for private redevelopment. Currently under various stages of acquisition, clearance and construction are 80 city blocks. Four major projects are well advanced, the largest being a 101-acre site on which the Turner Construction Co. is building for the New York Life Insurance Co. Four 12-story buildings and other buildings are to be erected here. Future plans call for construction of another 12-story structure, two 23-story buildings, 13 two-story buildings, a shopping center, underground garage and other facilities.

Several hundred homes are being built upon other sites, including 152 units being developed by the S. A. Healy Co., A.G.C., The Dallas, Ore. Another redevelopment site will be entirely industrial.

Expressways, parks, medical centers, a truck terminal, and more housing will provide \$1.2 billion worth of construction in Chicago's over-all redevelopment program.

Philadelphia Rebuilds Slums

Over 3,800 housing units have either just been completed or are now under construction in Philadelphia's redevelopment program. Local builders under contract for most of the work include McCloskey & Co. and Lauter Construction Co., A.G.C., as well as the F. H. Wilson Co., A.G.C., Ardmore, Pa., and B. J. Lucarelli & Co. of Jersey City, N.J.

Most recently completed area is Penn Towne, a project which the local redevelopment authority developed itself when a private investor could not be found. United Building Construc-

Distinct from Public Housing

Urban redevelopment, as described herein, although much of it is concerned with housing, is not to be confused with public housing programs being carried on simultaneously by cities—frequently under the same agency. Public housing will be the predominant use in only one of the urban redevelopment projects being planned and will have a subordinate role in five other projects of the total 137, of which about 70 are predominantly residential.

For example, St. Paul, Minn. is handling both urban redevelopment and public housing under one agency. Urban redevelopment is not yet in the land-acquisition stage, although two public housing projects have been completed on other sites.

Nashville, Tenn., is buying land for its first redevelopment, a project distinct from a public housing program which amounts to \$26 million.

tion Co., A.G.C., Philadelphia, built 138 units there at a cost of \$2 million.

Some are Entirely Private

Not all urban redevelopment is reliant upon the federal lift. Largest of the locally sponsored programs is in Pittsburgh where a municipal authority has supervised redevelopment of the "Golden Triangle" section to the tune of \$40 million in land and construction costs to date. Built thus far are three tall office buildings, by the Equitable Life Assurance Society of the United States, and other structures are being planned.

The civic authority is programming clearance of 50 acres of substandard housing on two other sites for more than \$105 million worth of plant expansion by Jones & Laughlin Steel Corp. In another move to level its blight areas for reconstruction, the authority is seeking clearance of a 25-acre site upon which Duquesne University could build new facilities.

In a speech last month, Albert M. Cole, HHFA administrator, declared that he wanted to see the federal slum clearance and urban redevelopment program move ahead rapidly and effectively in its aid to cities.



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STRENGTH

Used on the world's greatest structures because it withstands enormous pressures and stresses.

VERSATILITY

Made as a standard product in a great variety of shapes and dimensions for any structural use.

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Structural Steel can withstand great stresses and strain and will not burn.

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The strength of steel is permanent and does not deteriorate with age or use.

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Faster construction time and earlier use because members are prefabricated ready for erection.

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Streamlining
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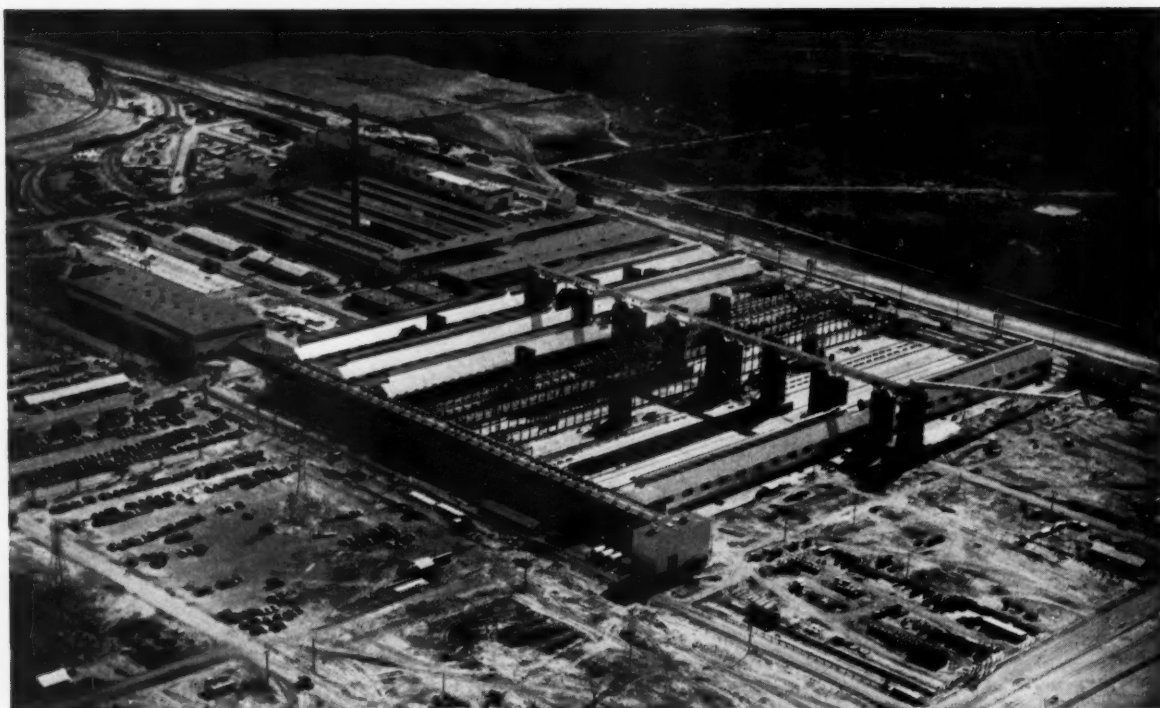
Plant at Canonsburg, Pa.

District Offices

NEW YORK, N. Y.

CLEVELAND, OHIO

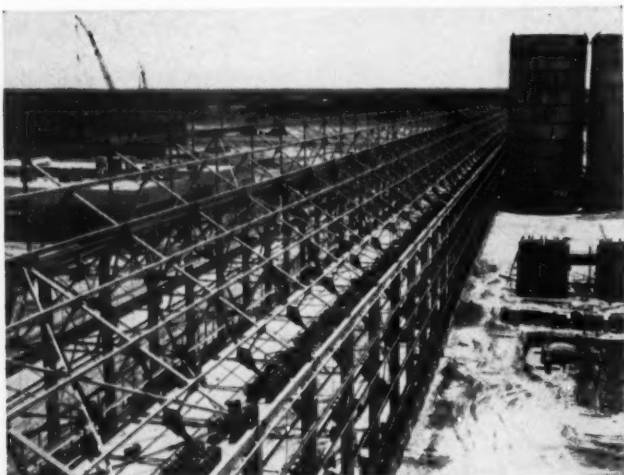
DETROIT, MICHIGAN



Aerial view of 90-acre Rockdale Works of Aluminum Company of America. Steelwork fabricated and erected by Bethlehem.

New Giant in the Southwest

This huge smelting plant at Rockdale, Texas, northwest of Houston, is the new Rockdale Works of Aluminum Company of America. It reduces refined bauxite to aluminum by means of an electrolytic process. It is the country's first aluminum plant to use lignite as a source of power.



Structural steel and storage tanks for one of the plant's long pot rooms.

The Rockdale Works is now in operation, but is not scheduled for completion until the fall of 1953. It will include a smelting plant with four pot lines and a plant for the manufacture of the carbon electrodes required in the electrolytic smelting process. Annual capacity of the new plant is expected to be approximately 170,000,000 lb.

The Rockdale Works covers 90 acres. It consists of 25 large industrial-type buildings, for which Bethlehem fabricated and erected 11,000 tons of structural steel.

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BETHLEHEM STEEL CONSTRUCTION

Increased Skyscraper Construction Rate Is Not Expected to Meet Potential Needs

» OFFICE BUILDING construction, which lately has been held in check by tight economic reins and government controls, appears to have broken its bonds this year and is running well ahead of the similar 1952 rate of construction.

At the end of June the total expenditure for new office and warehouse construction, over three-fourths of which is office buildings, was estimated by the Commerce Department at \$305 million as compared with \$211 million in the same 1952 period, or 44% higher.

This sharp increase in such construction is attributed to the general good health of American business and the removal of government controls which until recently prohibited or sharply curtailed most commercial construction.

But the new skyscrapers being built today are expected to do little toward relieving the shortage of office space in America's big cities. In many cases office building construction today is for owner-occupancy or for tenants who have agreed in advance to pay the high rental for new office space.

For the past 10 years there has

been a shortage of office space in most American cities. Since World War II, however, investors have been reluctant to go on a large scale building spree because of the high construction costs and vivid memories of low occupancy rates during the depression of the '30s.

During the building boom of the 1920's many office buildings were constructed and when the stock market collapsed losses to building owners were serious. As a result, many investors today are cautious in planning huge office building construction programs.

These men feel that new office space, with rentals corresponding to higher building costs, would be the first vacated if a depression comes. If this were to happen, tenant occupancy of these buildings would most probably drop below the 90-95% rate which is considered essential to break even.

Notable exceptions to this limited construction of office buildings are New York City and Washington, D. C.

New York, which has more home offices than any other city in the country, has not had enough skyscrapers since the war. In the last 2½ years

Pan American Bank Building in Miami, Fla., completed late in 1952, was erected by Witters Construction Co., A.G.C., for approximately \$1.5 million. Block-long building contains 120,000 sq. ft. of office space in upper stories with bank and shop space on ground floor. This is typical of many small office buildings being built in American cities today.

Jan Hankowski Photo



THE CONSTRUCTOR, JULY 1953



Swager Studio

The 41-story William Penn Building in Pittsburgh, completed recently, is one of the tallest skyscrapers built since the 1920's. Architects, Harrison, Abramovitz and Cocken.

New Prudential Building in Houston is one of the city's largest modern skyscrapers. Designed by Kenneth Franzheim, the 12-story structure cost \$5 million.

Bailey Photo





Simmonds Photo

Tishman Building in Los Angeles owned by the Tishman Construction Corp. of New York City. Designed by Architect Claude Beelman, the \$6.5 million structure is fully air conditioned.

Sinclair Oil Building in New York City is 26 stories tall and contains 394,000 sq. ft. of office space. Designed by Ason & Lundin architects, at cost of \$7.6 million.

Target Photo



permits have been issued for nearly \$50 million worth of new office buildings. Even with such a high rate of construction, occupancy rate in Manhattan is better than 99%.

Since late 1945 Washington has completed or has under construction 27 large office buildings totaling 1.6 million sq. ft. The addition, which represents a 20% increase, gives the nation's capital a total of 6.6 million sq. ft. of office space.

In Seattle only one major private office building has been constructed in recent years. This is the 14-story addition to the Medical and Dental Building, which will give 92,000 sq. ft. of additional office space to the city's rapidly growing medical and dental professions. In March, office space in Seattle was 97% occupied.

New office building of the Bonneville Power Administration in Portland, Ore., expected to be completed by next spring at cost of \$4.7 million. Only eight stories tall, the structure is two city blocks long.



Houston recently completed the new Prudential building in its rapidly developing South Side business district. It is 21 stories high, faced with granite, limestone and aluminum, at a cost of \$6 million.

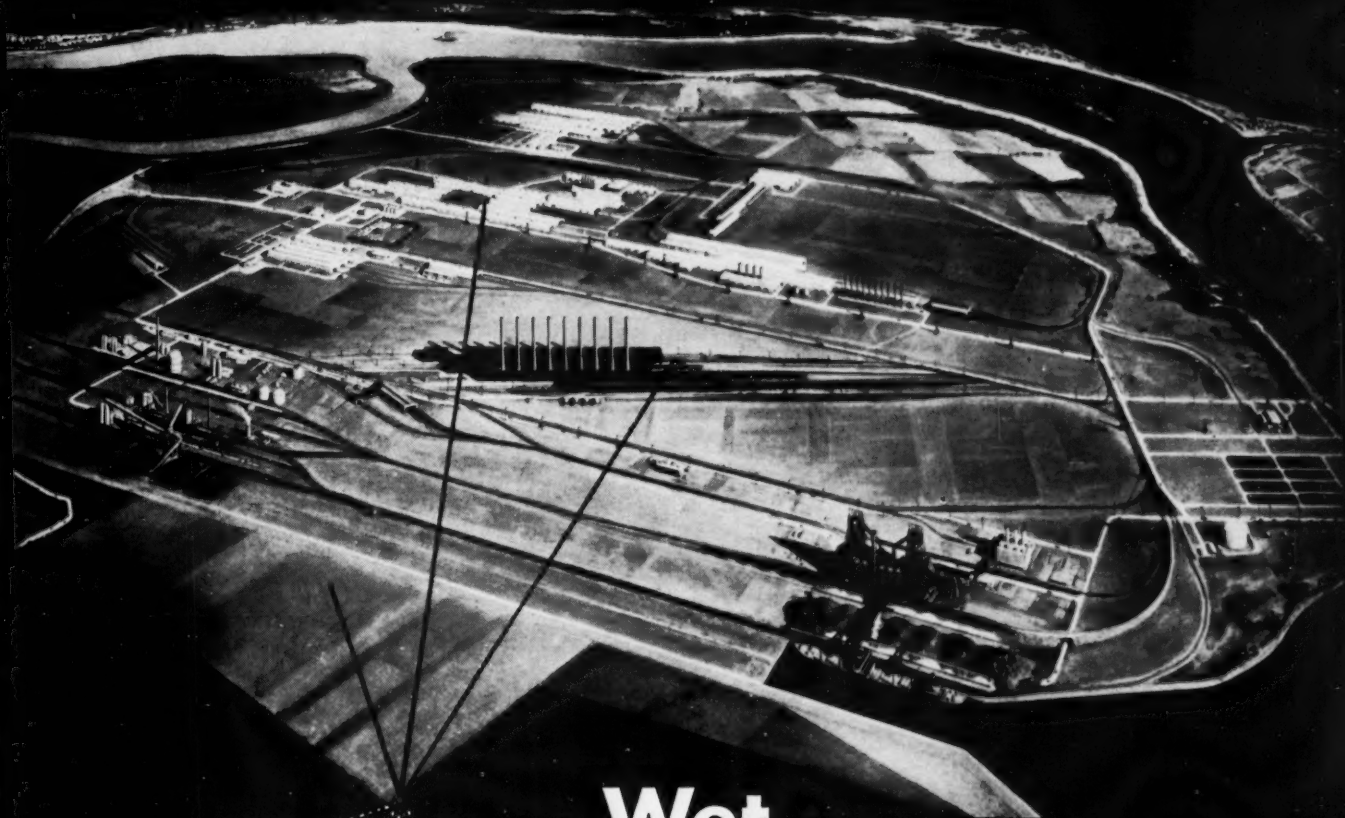
The Continental Oil Co. announced in May that it will construct in partnership with the Texas National Bank a new 21-story office building with a 12-level garage in downtown Houston at a cost of \$10.5 million. Ownership of the structure will be divided with Continental Oil occupying the top 10 stories and the bank occupying the lower 10 floors. Each will own jointly the 21st floor.

Chicago's Prudential

Chicago, which is just beginning to make up for lost time in office-building construction, is now erecting the 41-story Prudential Life Insurance Company's future home. This will mean 1 million more sq. ft. of office space for the Windy City after Prudential's own needs are taken care of. Expected to be completed by the fall of 1954, the steel and granite structure is expected to cost some \$42 million and be the most modern office building in the world. This is the first building of its size to be built in Chicago in 20 years.

In Pittsburgh, one of the largest skyscrapers to be built since the 1920s is the 41-story William Penn Place Building, home of United States Steel. Begun in 1949, the structure was fully completed and occupied in January of 1952. Owner of this building is the Mellon National Bank and Trust Co. which has the bottom eight floors with U. S. Steel leasing the rest.

Fairless Works on the Delaware River —
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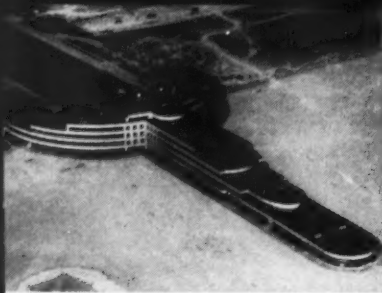
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Huge Terminal Building at World's 2nd Largest Airport *By* **AMERICAN BRIDGE**



4,000-Ton steel framework fabricated and erected for 460-ft. semi-circular 7-story Administration Bldg. and 578-ft. Loading Dock

THE new thirty-three million dollar Greater Pittsburgh Airport, opened in June 1952, is an impressive sight. Its sixteen-hundred acre airfield is the second largest in the world . . . larger even than Washington's National Airport and New York's LaGuardia Field combined!

But, as impressive as is the airfield itself, it is overshadowed by the spectacular Administration Building. This seven-story, semi-circular structure with its long loading dock is easily the world's largest terminal building.

American Bridge fabricated and erected the 4,000-ton steel framework for this huge structure which is 460' feet in breadth at its widest point, and with its 578-ft. loading dock has an over-all length of 979 feet. Nine months after the erection crew took over, the last rivet was driven.

This huge building is another example of American Bridge engineering and fabricating "know-how". And it is your assurance that you can depend on American Bridge to handle any type of steel-frame construction with thoroughness and speed . . . any time . . . anywhere. If you would like to know more about the advantages of American Bridge fabricated and erected construction, call our nearest office.

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Interesting Facts

Airfield is 2nd Largest in World.

Terminal Building is Largest in World.

The terminal building provides facilities of a small city, including a 62-room hotel, a restaurant to accommodate 3000, numerous shops.

Designed by: Allegheny County Department of Aviation.

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Architect: Joseph Hoover, Pittsburgh.

Consulting Engineer: L. W. Cook, Pittsburgh.

Structural Steel Fabricated and Erected by American Bridge: 4,000 Tons.

AVAILABLE NOW! For showing in churches, schools, clubs and industries, the new sound and color motion picture—**BUILDING FOR THE NATIONS**—a candid, factual photographic record of the highlights of the fabrication and erection of the United Nations' Secretariat Building.

AMERICAN BRIDGE



UNITED STATES STEEL

BUILDING

State Building Booms

Increased amounts for construction of new and expanded state institutions, state office buildings and other publicly-owned structures were made available on a wide scale by state legislative sessions throughout the country this year, accompanied by broadened resort to bond issues to finance such projects.

Among the states giving legislative approval for new general obligation bond issues or new or broadened authority for revenue bond financing of state institutional or related construction were Arizona, Connecticut, Florida, Georgia, Indiana, Kansas, Maryland, Montana, Nevada, New Mexico, North Carolina, Oklahoma, Tennessee and Washington.

Biggest Programs

Two states, Florida and Kansas, made funds available for the greatest two-year building programs in their history. Florida appropriated \$32,228,165 for new structures for the universities and custodial institutions, a new women's prison, a southeast Florida mental hospital and a big state park development program. Also the state authorized a special \$5,000,000 appropriation to start a new medical college at the University of Florida, and authorized the State Board of Control to issue \$3,400,000 in revenue bonds for construction of student housing at the state's universities with rentals from fraternities and sororities to pay off the bonds.

In Kansas \$29,124,489 will be available during the two-year period starting July 1 for construction projects, including a new \$9,000,000 state office building. A State Office Building Commission was created by the legislature with authority to issue \$7,500,000 in revenue bonds against the state's inactive funds for erection of the building and to provide accompanying parking facilities. Previous legislatures had appropriated \$2,000,000 toward the building. Also enacted was a bill levying a 1/2-mill state property tax to raise an estimated \$2,000,000 a year to erect buildings at state mental hospitals and other institutions.

Georgia, Illinois, Indiana, Ohio, Oklahoma, Pennsylvania and Washington were among states making appropriations for or appointing commissions for construction of state office buildings.



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interlocking steel-slat curtain. Their coiling action is also ideal for motorized, push-button control.

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Saving Ways in Doorways



REMAKING A RIVER BED. The channel of the Arkansas River is being realigned by this fleet of International crawlers owned by the C. W. Kelley Transport Company, Inc., and Rush Construction Company, shown cutting new channel through section of island.

Speeds up Sleepy River





RIVER CROSSING. International crawlers reach islands to start re-channeling work by building earth ramps across the river. They worked in sand and water throughout the summer with no downtime.



CHANGING THE CHANNEL. Operator Kie Bayless says: "These TD-14As have more 'soup' than any other tractor their size. They just plain move more dirt."

International crawlers speed up flow of Arkansas River as safeguard for Kansas wheat belt

Flow of the long and lazy Arkansas River is being speeded up one-third along a 30-mile stretch in Reno County as a flood prevention measure aimed at safeguarding the rich wheat belt in this Kansas County.

When the river rises just six feet, and it does periodically, it spills all over the wheat fields and causes extensive damage.

But county officials feel they have a solution. This year they launched the first portion of a proposed three-year plan involving some \$50,000 expenditure each year for elimination of bad turns and islands in the river channel. This improvement will increase the flow of the river from 4.06 feet per second to 5.41 feet per second or more and it is felt this faster flow will be sufficient to keep the river in its channel.

Dirt moving for the first-year phase of the improvement is being handled by Rush Construction Company and C. W. Kelley Transport Company, Inc., with rugged red International TD-18A and TD-14A crawlers.

H. M. Dunsworth, job foreman, reports:

"We lug these TD-18As and TD-14As down all the time. They not only have the power and maneuverability to do a bang-up dirt moving job, but that high-speed reverse sure makes us money on this river job as lots of the dozing calls for long pushes. These Internationals, and some have been used for years, have worked over two months here under miserable conditions with absolutely no downtime."

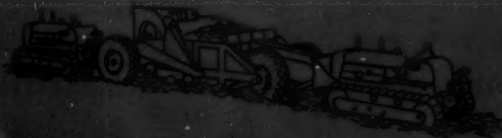
Ask your International Industrial Distributor for details on the whole International line of money-making crawlers. Ask him, too, about his fast, ready service and speedy parts delivery. Get all the answers . . . you'll want International "Power that Pays" from now on!

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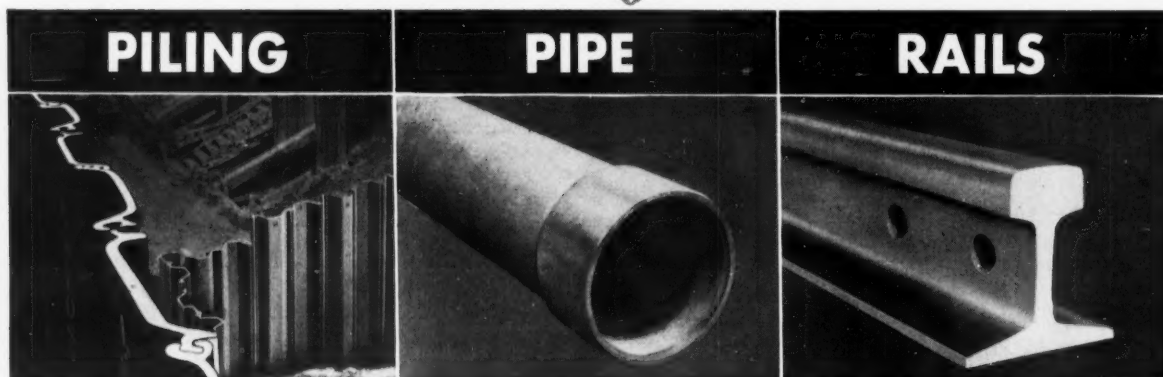


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Tilt-Up Panels, Timber Trusses Speed Job

• Vast Warehouse Project Covers 28 Acres Near Washington



» USE OF the popular tilt-up method for pre-cast wall panel erection and engineered timber roof trusses is speeding up completion of one of the world's largest warehouses near Washington, D. C.

The project, consisting of two buildings, one measuring 500 by 500 ft., and the other 500 by 2,002 ft., is being constructed by Barrett & Hilp, Inc., A.G.C., of San Francisco, for the Parr Warehouse Co. The 1¼ million feet of floor space located at Franconia, Va., will be leased to General Services Administration for government storage.

Some 400 industry men were conducted through the project last month in a program sponsored by the District of Columbia section of the American Society of Civil Engineers, with the National Society of Professional Engineers participating, and given a demonstration of the methods by which one of the 20 by 26 ft., 20-ton wall panels and one of the 71-ft. timber trusses were erected.

Guests included the Washington chapter of the American Institute of Architects, and speakers included

Lloyd J. Brown, Barrett & Hilp superintendent; J. E. Peck, of Ward & Bolles, architects; and Herbert Manuccia, D. C. consulting engineer.

The panels, which are cast in molds at the site, are positioned by crane, jointed and sealed with poured-in-place columns at the rate of 12 per hour by experienced crews. A timber truss can be assembled and erected atop the solid timber columns in just over a half-hour by a seven-man crew.

With working beginning last December, the smaller unit was completed within 90 days from ground-breaking, and is occupied. The entire job is slated for completion next month.

The 773 trusses were prefabricated in Portland, Ore., by Timber Structures, Inc., shipped to the site and assembled with Teco split-ring connectors. In addition to the exterior concrete columns, 545 solid timber columns were necessary to support the roof—an average of about 20 supports to the acre.

The project requires about 5.4 million board feet of Douglas fir and 35,000 cu. yds. of concrete.



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Now completed is the ultra-modern M. D. Anderson Hospital for Cancer Research which Farnsworth and Chambers Co. built. It cost \$8.2 million. Plans are being made for other buildings in the center.



Medical center buildings under construction are Houston Academy of Medicine Library by Texas-Gulf Construction Co. and University of Texas Dental Branch by Manhattan Construction Co.

\$75-Million Houston Medical Center Still A-building

» FIVE MILES south of the heart of downtown Houston, Tex., a \$75-million medical center is rising in the Texas skyline. Structure by structure, the 19-building development is going up under the best efforts of several Houston contractors.

The multi-million venture, located on a 164-acre tract, is well underway. Some \$35 million worth of buildings have been completed within recent years and in the next 12 months construction worth another \$21 million will be brought to completion. Additional facilities will be added over the next few years until the finished medical center ranks as one of the nation's best, competing in size with some of the large centers in the East.

By 1954, the number of hospital beds at the center is expected to total 2,500. In addition, the center has

access to 850 beds at the U. S. Veterans Administration Hospital, a half mile from the center, which is also an affiliate of the center.

Seven Houston contractors have been called upon to construct the hospitals, clinics, office buildings, library, research facilities, and medical, dental and nursing schools as plans have been brought to the construction stage.

Linbeck and Dedrick, A.G.C., has built both the Hermann Hospital and Clinic and the Hermann Professional Building. The latter is an 18-story building with 80 offices for doctors, dentists and laboratories. The Hermann Hospital and Clinic, built at a cost of \$7.7 million contains a total of 525 beds.

Thomas Bate and Son, A.G.C., erected one of the first structures put up—the \$3-million Baylor University College of Medicine and the modern, 300-bed Methodist Hospital, which cost \$5 million.

Texas Children's Hospital, central

pediatric facility of the center, is a 115-bed hospital just completed by Tellepsen Construction Co., A.G.C., at a cost of \$2.8 million. The contractor is now finishing work on the 340-bed St. Luke's Episcopal Hospital, a \$4.6 million facility.

A \$1.5-million children's clinic, operated by the Shrine, was built by Knutson Construction Co.

One of the most widely admired buildings in the center for its design and planning is the M. D. Anderson Hospital for Cancer Research. The \$8.2 million medical building was put up by Farnsworth and Chambers Co., A.G.C.

Construction by Texas-Gulf Construction Co., A.G.C., on the Houston Academy of Medicine Library is underway. Also under construction is the University of Texas Dental Branch, being built by the Manhattan Construction Co., A.G.C.

Future projects include a \$16-million hospital and other buildings.

Affiliated with the Houston Medical Center is this large Veterans Administration Hospital shown before it was completed. It has 850 beds.



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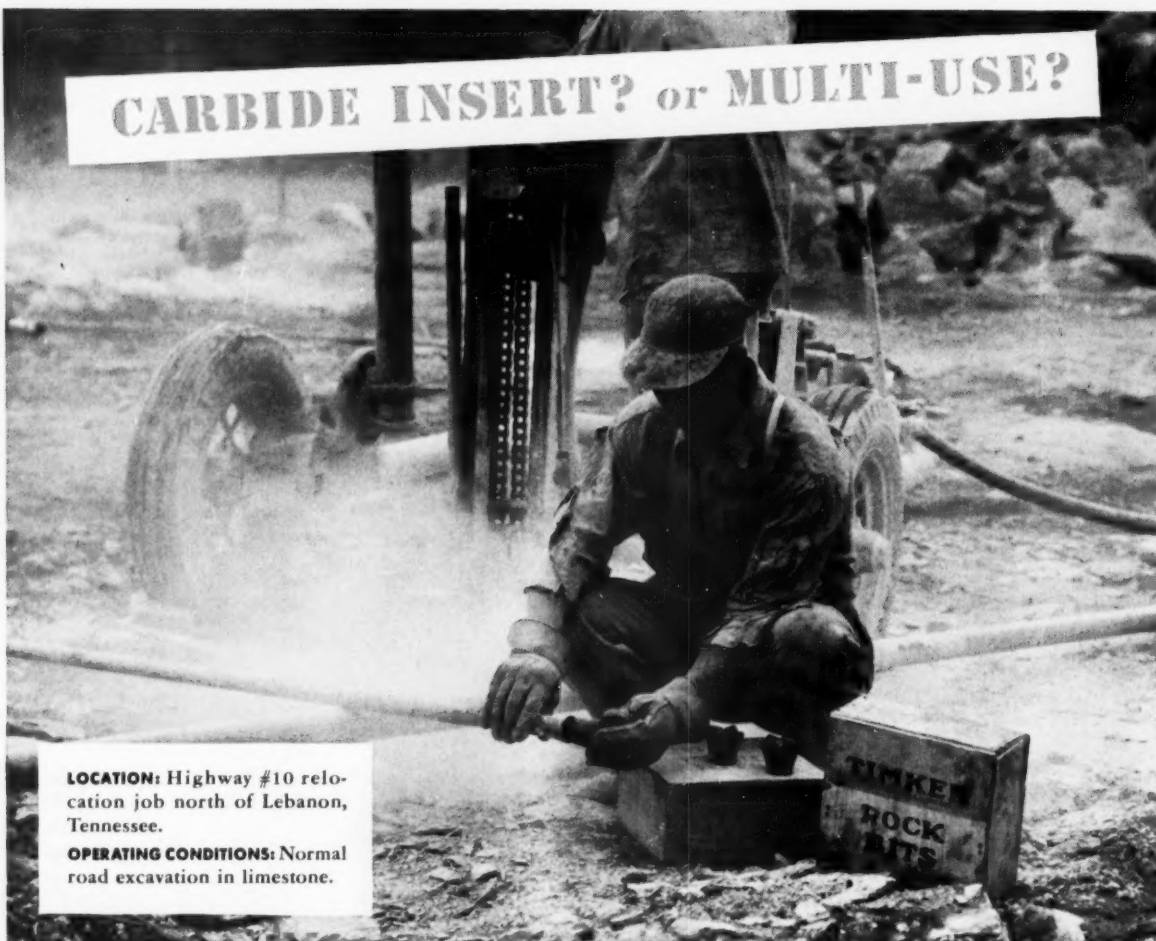
PAVERS



The Shirley Highway in Virginia
near Washington, D. C.

- **Public Support For Adequate Roads
Is Goal of PAR Publicity Drive . . . Page 131**
- **State Legislators Find Highway
Financing Hot Political Potato . . . Page 132**
- **Maryland Gets \$568-Million Plan . Page 135**
- **Contract Maintenance Spreads . . . Page 141**

CARBIDE INSERT? or MULTI-USE?



LOCATION: Highway #10 relocation job north of Lebanon, Tennessee.

OPERATING CONDITIONS: Normal road excavation in limestone.

Why McDowell & McDowell, Contractors, use TIMKEN® multi-use bits on Tennessee highway relocation job

McDOWELL & McDOWELL, contractors of Nashville, Tennessee, found Timken® multi-use bits gave lowest cost per foot of limestone drilled during normal road excavating on Tennessee highway #10.

Timken multi-use bits are often the most economical for drilling in ordinary ground. With correct and controlled reconditioning, they give lowest cost per foot of hole when full increments of steel can be drilled.

In hard, abrasive ground, Timken carbide insert bits are your best bet. They give highest drilling speed, are most economical for extremely deep holes, constant gage holes, small diameter blast holes.

With Timken carbide insert and multi-use bits, you save on drill steels, too! As many as 93 different sizes of Timken bits in the same thread series fit the same drill steel. And both Timken carbide insert and multi-use bits are made from electric furnace Timken fine alloy steel, have the shoulder union developed by Timken that protects threads from drilling impact.

To find out which bit type is best for your job—whether multi-use, carbide insert, or both—call on the Timken Rock Bit Engineering Service. Twenty years of experience have made the Timken Company the leader in the field. Write The Timken Roller Bearing Company, Rock Bit Division, Canton 6, Ohio. Cable address: "TIMROSCO".



Timken threaded multi-use rock bit



Timken threaded carbide insert rock bit

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for the best bit
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"Here is our 'nation on wheels'—bumper-to-bumper."—From a PAR report

"Big cities are getting so crowded that millions of people are moving into the far suburbs where they have to have cars, so they can drive back into the city to their jobs, where there is no place to put their cars."—A national commentator

» LAST MONTH, General Motors Corp. announced the award of \$194,000 in prizes for essays written by individuals suggesting solutions to the American highway problem. The automobile manufacturers declared bluntly that their object is to stimulate public interest in a dilemma that is worthy of immediate citizen attention.

Airing the need for adequate highway construction has long been the responsibility of such groups as the American Automobile Association, the American Trucking Associations, the American Association of State Highway Officials and other groups representing segments of the national economy which depend on good highway transportation for their livelihood or for recreation. Today, however, commercial interests only indirectly concerned with the condition of the roads have added to their appeals for increased roadbuilding funds.

The result is a rain of publicity focussed on the need for highway construction which shows no sign of diminishing until some sort of action is taken. Newspaper editorials, advertisements, speeches, magazine articles, and insistent campaigns by the trade press are evidence that a vast body of interests are dependent upon adequate highways and are bending their efforts to secure them. That

Public Support for Road Construction is Goal of Publicity Drive Launched by PAR

all are striving to arouse public opinion is apparent.

"We are never going to get out of the highway muddle, we are never going to get the modern highway system we need until the everyday man on the street, the man with no axe to grind but who is the ultimate highway customer, starts doing the talking," declares Albert Bradley, executive vice president of General Motors.

Radio and Press Interest

The Hearst Newspapers, in a planned program to get the highway needs before their readers, have printed over a million lines on the subject within recent months. The rubber tire companies, among other industries, have advertised the highway plight widely in national publications. *Look*, a weekly magazine, has devoted a number of articles to the drive recently.

Thousands of radio listeners have heard appeals for attention to road needs from such commentators as Henry J. Taylor, who told his audience recently, "The highway crisis you and I notice on all sides of us—the terrible congestions, the delays, the dangerous bottlenecks which fence

us in—grows and grows all the time."

Last month a loosely knit organization known as PAR (Project Adequate Roads) met in Washington, D. C., to evaluate what is being done to stimulate public support. Sponsors of the movement are national farm groups, construction materials producers, automotive industry groups, highway user organizations and trade associations like The Associated General Contractors of America and the Chamber of Commerce of the United States.

The 150 representatives heard delegates from several states describe the support which private individuals and state legislators are giving to accelerated highway construction programs. Industry representatives reported that the advertising campaigns to get better roads will be continued. Clem D. Johnson, chairman of the Project Adequate Roads drive, appealed for continued publicity of the highway picture and urged that efforts be accelerated to obtain an adequate roads program in every state by 1955.

Push Sufficiency Ratings

Among its other objectives, PAR seeks to win adoption of sufficiency ratings as an objective measure of determining priority of construction in a state or county road system. By evaluating each section of road in a network and assigning it a number based on its adequacy in structure, traffic service and safety, a highway department can outline a program of construction based on comparative need, rather than on political considerations involved. PAR believes that such an objective priority listing of projects will do much to secure civic support for any long-range program highway officials may propose.

A flood of publicity about America's highway needs is being loosed through newspapers, magazines and radio to awaken public interest in one of the nation's most urgent public problems. Results may not be realized immediately, but already an attitude is being created in which state highway planning can receive greater civic support. See next page.

State Legislators Find Highway Financing is Hot Political Potato

- Toll Road Proposals Advanced in Some States
- Gasoline Tax Increases and Bond Issues Debated

» WHILE PAR and other good roads proponents have sought to enlist public opinion behind accelerated highway programs, state legislators and public officials have been making decisions on road issues which will delay or permit actual construction in many states.

Highway financing proposals are proving to be hot political potatoes as legislators find themselves faced with quickly depreciating road systems on one hand and the traditional opposition to tax increases on the other. All the usual financing meth-

A.G.C. Testifies in Hearing Page 33

ods are being considered and reconsidered and some unusual schemes are being explored by the lawmakers, who recognize the pressing needs of their state, county and city highway departments. Increases in gasoline tax rates, and licenses, toll financing and banning of road revenue diversion are measures being seized upon where they hold reasonable hope of sparking the much-needed construction.

Advocates of toll roads are getting a hearing in several states and advancing that method of financing. Such a case is *Kansas* where a toll road enabling act, creating a commission to study, finance and construct toll highways, was finally approved.

In *Florida*, a new engineering report confidently predicts that a 362-mi. central Florida turnpike would yield sufficient toll revenues to retire a \$199-million bond issue in 12 years. The state has a new enabling law providing for a turnpike authority to construct a shorter stretch which would cost \$50 million.

Ohio Turnpike Gets Underway

The Ohio Turnpike will get underway again now that the state supreme court has declared that alternate bids on both asphalt and concrete do not have to be considered by the commission. Concrete paving specified by the turnpike officials was challenged by asphalt interests.

Oklahoma's turnpike authority has received legislative approval to build three more toll highways. *North Carolina* lawmakers have enacted a bill creating a new Carolina-Virginia Turnpike Authority to build a toll road along the seacoast of the two states. New studies of toll road feasibility have been authorized in *Iowa* and *Minnesota*. In *Maine* a recent bond issue will finance cost of a 57-mi. turnpike extension.

A \$40-million bond issue to be amortized from toll collections has been authorized in *New York* to finance parkway construction. Two toll projects in *New Hampshire*—one to cost \$19 million and the other \$13.5 million—have been given the green light. *Illinois* is considering a proposal to create a toll road authority backed by the governor.

Lawmakers OK Bond Issues

A host of bond issues to finance highway work has been debated in legislative sessions this season, some of which were approved. The *Connecticut* legislature has authorized construction of a \$213 million thruway. It will be financed by tolls.

The state supreme court of *New Jersey* recently upheld the constitutionality of a 1952 law pledging the state's credit behind \$285 million worth of revenue bonds of the highway authority, thus clearing the way for construction of the 185-mi. Garden State Parkway.

A \$4-million bond issue for road construction in *Vermont* has been approved. *Louisiana* has authorized sale of \$30 million in bonds for highway

construction and allied costs. A bill to authorize a \$10-million bond issue for hard-surfacing nearly 2,000 mi. of dirt roads has been passed by *Delaware* legislators.

Oregon's income for highways will go up to \$30 million per year after sale of \$32 million worth of bonds authorized this session to meet critical road needs. *Florida* is planning to proceed with three revenue bond projects which would cost \$6 million, \$7 million and \$19 million. Lawmakers of *Tennessee* have approved a highway bond issue of \$24 million.

New bond issues have been authorized, also, in *Maryland*, *North Dakota* and *Washington*, while others are pending approval or denial in *California*, *Delaware*, *Ohio*, and *Pennsylvania*. *Ohio* has proposals under consideration which would approve bond issues up to \$750 million for highways.

Gasoline Taxes Uped

Other states have turned to increased gasoline taxes as a productive revenue measure. As in the case of bond issues, such proposals have run into strong opposition which has frequently resulted in their abandonment. That has been so in *Colorado*, *Idaho*, *Indiana*, *Kansas*, *Minnesota*, *Montana*, *New Mexico*, *New York*, *North Dakota*, *South Dakota*, *Washington* and *West Virginia*.

Iowa legislators increased the state gasoline tax rate from 4 to 5 cents a gallon and expect \$7.5 million in additional revenue which will be used on primary highways now improved only with gravel or crushed rock. The new law also increases the diesel fuel tax. Rejected by the *Iowa* lawmakers was a proposal to submit a \$300-million primary road bond issue to the voters at the 1954 general election.

Maryland, which has a new 12-year, \$568-million highway improvement program, will pay the cost through increases in the state gasoline tax and registration fees and by floating \$330 million worth of bonds throughout the period. (See Page 135.)

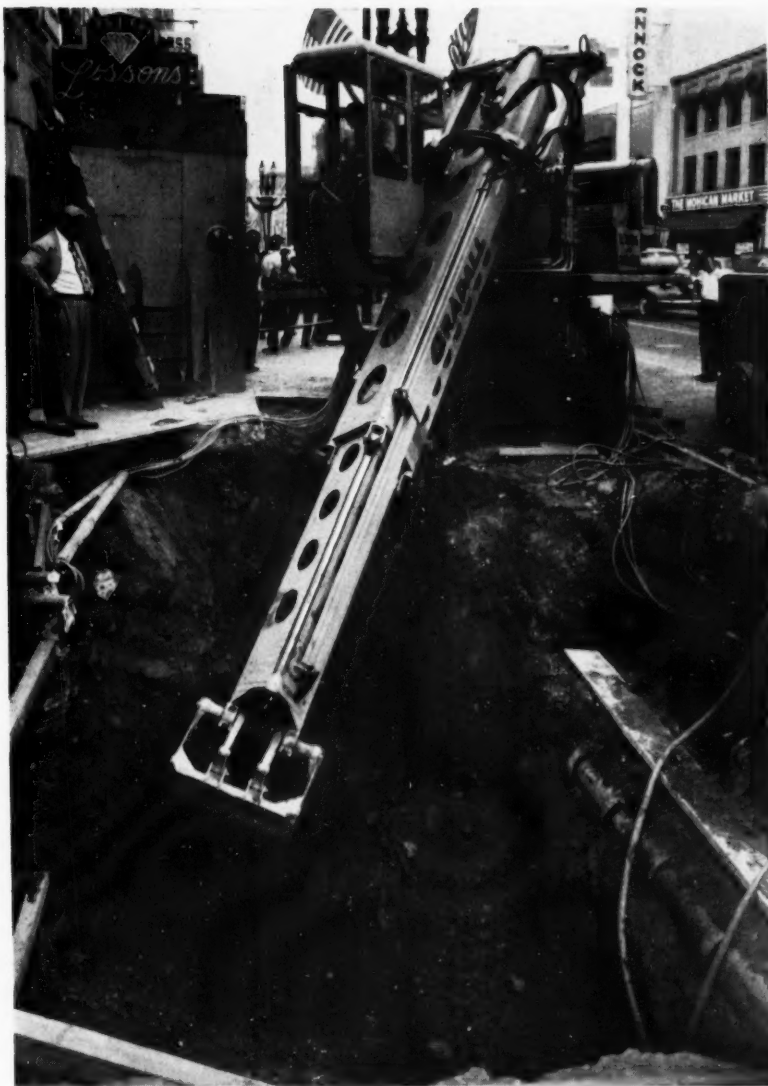
An increasing number of states are adopting resolutions memorializing Congress to repeal the federal gasoline tax in order to permit its replacement with increased state levies. States in which such measures have been adopted include *Arkansas*, *California*, *Colorado*, *Connecticut*, *Illinois*, *Indiana*, *Iowa*, *Kansas*, *Minnesota*, *North Dakota*, *Utah* and *Wisconsin*.

Anti-Diversion Action Taken

Proposed state constitutional amendments to outlaw the diversion of highway user tax revenues to non-highway uses, already in force in 24 states, have now been given initial approval in *Maryland* and *Tennessee* and final legislative approval in *Wyoming*, where the issue will go on the ballot at the next general election.

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THE CONSTRUCTOR, JULY 1953

133

For REACH and SPEED —the paver for any pouring job



LOOK at the picture above—one machine that can place itself in any location—no expense for purchase or operation of a hoisting mechanism—no extra cost for truck equipment—minimum operating crew! Here is pouring at low cost.

MultiFoote brings you the greatest combination for mixing and pouring concrete you can find anywhere. One unit with the MultiFoote HighLift Boom permits you to mix and pour three stories up and then by simply lowering the boom or with a simple change in booms where extra long HighLift Booms have been used, you are equipped for pouring slab at a speed that has seldom been equalled.

MultiFoote Pavers have established records for pouring slab at the rate of a mile a day. With the MultiFoote you are ready to bid on a wide range of contracts and three sizes of MultiFoote Pavers from a 27-E Single Drum to the big 34-E DuoMix care for practically any capacity problem. Ask for details.

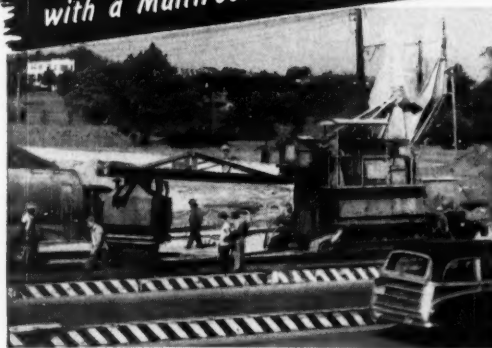
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*FREE YOUR CRANE for other Work
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MultiFoote 34-E DuoMix getting out 50 batches an hour even with difficult traffic conditions impeding trucks.





COUNTY roads in Maryland will get a lift under the new program allowing counties to increase their indebtedness.



STATE roads like this will be improved. Route MD-60, above, will have the vertical curves smoothed out.



U. S. routes will get help. Congestion on U. S. 50, above, near Bladensburg, will be relieved by a new expressway.

Maryland Launches a \$568-Million Road Program

• 300 Mi. of New Highways in State's 12-Year Plan

» AT 4 A. M., April 6, the last meeting of the 1953 session of the Maryland Senate passed a bill which launched the Free State on one of the most comprehensive and far-reaching state highway programs under way.

After a stormy, all-night debate, the legislators voted 26 to 3, in favor of an ambitious undertaking which would require \$568 million and take 12 years to fulfill. Some \$242 million was authorized for the first four-year period of that program, \$130 million of which would go into primary roads. In the 12-year plan were new road projects totalling 300 mi. and improvement projects totalling 3,150 mi.

To finance the long-range program, it was proposed to raise the motor vehicle registration fees and the state gasoline tax from 5¢ to 6¢. In addition permission was sought to obtain up to \$330 million through bond issues. Tied to the bill, on the insistence of county officials, was a provision to allow the 23 counties to increase their indebtedness to a total of \$50 million.

Free from Political Pressure

The comprehensiveness of the program and the fact that the highway department will be free from political interference for four years to follow their approved priority list makes the program one of the most enviable in effect. State officials believe it passed because it was objective and legislators were given sufficient time to study its implications. The fact that the

The Maryland State Highway Department issued a 20-page booklet written in language the people could understand and distributed it widely.

state has highly populated areas which are outgrowing rapidly their present highway facilities has been apparent for some time.

For contractors, approval of the program means a continuity of work and the other benefits of adequate advance planning.

When first proposed to the Maryland legislature, observers felt that a 12-year program embodying such a vast sum of money had little hope of receiving approval. A former governor of the state declared that it was unwise to tie up so much money in the hands of a three-man State Highway Commission. Also opposing the plan were interests rebelling against the increased highway user taxes. Although the vote was close in the State Senate, it was 81 to 12 in the House, in favor of the program.

The state highway department itself was instrumental in securing the support of a large body of citizens by accepting all invitations to address civic and business groups. Many such bodies sent letters of endorsement to the legislators. The public relations office of the highway department assembled the pertinent facts about the state's highway needs and the proposed solution. This it placed in the hands of the lawmakers, other government officials, the press and radio sta-

tions. No outside organization was called in to publicize the proposal.

"To my knowledge, there is no other state, at this time, which has a program of highway improvement and a financial plan geared to it which gives such promise of adequate roads within a reasonable period of time."

—Roy E. Jorgensen, engineering counsel, National Highway Users Conference

Maryland contractors are not yet feeling the full force of the program. The highway department is letting contracts for improvements which require little surveying. Plotting the new routes for the large projects and acquiring the right-of-way will take some time. Whereas the state was buying land for roads at the rate of \$2.5 million annually, now it has advanced to the rate of \$10 million annually. An extreme shortage of engineers is handicapping the department.

Currently under construction is about \$70 million worth of contracts. Major projects include the 35.5-mi. Eastern Shore Expressway to cost \$10 million, the Harrisburg Expressway, the Washington National Pike from Frederick to Washington, D. C., and a by-pass around Baltimore.

Approved with the bill proposing the Maryland road program was a rider providing a waiver of the state's truck weight restrictions for trucks loaded with sand and gravel and operating on a run less than 40 mi.

"IT COSTS MORE TO USE OLD ROADS
THAN TO BUILD NEW ONES"

INSURANCE REPAIRS DISCOMFORT



Contractors Push Work on 535-Mi. New York Thruway

» THOUSANDS of workmen, under the direction of a score of highway contractors, are pushing the largest highway project in the U. S. across the state of New York with renewed efforts this season.

By next month the last 49 mi. of the 427-mi. main trunk of the superhighway will have been put under contract, the New York Thruway Authority anticipates, making a total of 372 mi. under construction this season. The first 55 mi. were completed by June 1.

The road contractors are expected to complete a 150-mi. stretch between Batavia and Utica for opening this year and, by the fall of 1954, the entire 427-mi. route is scheduled for completion. Much depends upon contractors now grading, paving, and building overpasses along the mammoth project, if that time schedule is to be met.

Four of the major contractors on this phase of the job have contracts ranging in value from \$18.9 million to \$32.7 million. They are The Lane Construction Co., A.G.C., Meriden, Conn. (\$32.7 million); Savin Construction Corp., A.G.C., East Hartford, Conn. (\$26.8 million); D. W. Winkelman, A.G.C., Syracuse, N. Y. (\$19.5 million); and B. Perini & Sons, A.G.C., Framingham, Mass. (\$18.9 million).

Slicing across the Empire State in one unbroken stretch, the completed Thruway will channel traffic from New York City to Buffalo without a traffic light. Tying into this 427-mi. trunk line are feeder routes, considered part of the system and adding another 108 mi. of construction yet to be undertaken. Twenty percent

of the total 535 mi. will be six lanes, the balance four lanes.

A review of this giant venture indicates the amount of work in progress. Into the building of the highway itself will go an estimated 4 million cu. yds. of stone, 2 million cu. yds. of sand, 92,000 tons of steel and 7.3 million barrels of cement. Plans call for 525 overpasses and other structures

Quality of Construction Noted

New York State officials and engineers on an inspection tour of the Thruway project last month were impressed by the innovations in road construction they observed, *The New York Times* reported. They had high praise for the "perfection of workmanship" that marked the route and noted that the authority had sacrificed speed for quality.

along the route, almost one a mile. They will require another 1.6 million barrels of cement and 178,000 tons of structural steel.

The human effort involved supplements the large fleets of equipment which contractors have marshalled along the way. More than 22,000 persons are engaged in the design, supervision, construction and inspection of the super project. This includes an engineering force of 2,400 employed by 35 different consulting engineering firms and by the New York State Department of Public Works and the New York State Thruway Authority. Forming the con-

struction force are 10,000 skilled craftsmen and equipment operators and 8,000 laborers.

The route of the Thruway progresses for the most part across gently rolling hills, but there are areas like the Montezuma marshes west of Syracuse which require special treatment. Here, Contractor A. S. Wikstrom, A.G.C., Skaneateles, N. Y., undertook to muck out the soft, black soil and cast it on the sidelines as dikes. Trucks hauled in solid fill material which was allowed to settle.

Not far down the route, Geo. M. Brewster & Son, A.G.C., Bogota, N. J., was subcontractor to the Winkelman firm on a stretch which required stabilizing the subsoil by driving sand-pile drains.

Arute Bros., A.G.C., New Britain, Conn.; Potter-DeWitt Corp., A.G.C., Pavilion, N. Y.; John Arborio, A.G.C., Poughkeepsie, N. Y., and S. A. Healy Co., A.G.C., The Dalles, Ore., are other contractors on the road.

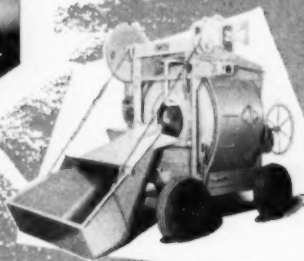
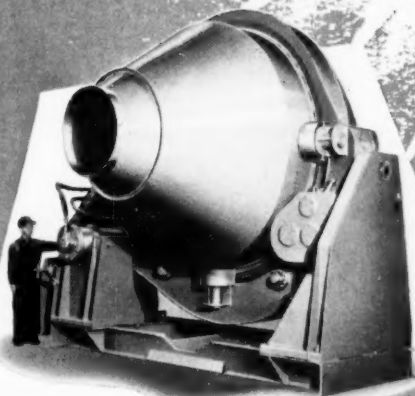
Key structure on the superhighway is the Hudson River crossing between Nyack and Tarrytown, N. Y. On the site there are two heavy construction contractors who are handling substructure work for the 3-mi. bridge. Merritt-Chapman & Scott, A.G.C., New York, has contracts totalling over \$13 million for foundation work and Construction Aggregates, A.G.C., New York, has contracts for about \$7.7 million for foundations and piers.

American Bridge Division of U. S. Steel Corp., N. Y., has two contracts for bridge superstructures totalling almost \$32 million, which will bring total cost of the river crossing to more than \$52 million.

Left: The New York Thruway's 200-ft. right-of-way puts a strain on the crowded Mohawk Valley. In the left foreground, part of the Barge Canal is being filled to provide a foundation for the new expressway. To compensate for this, land on the right will be excavated, edging the canal to that side. Below: A completed four-lane section of the big project running 427-mi. through the scenic state.



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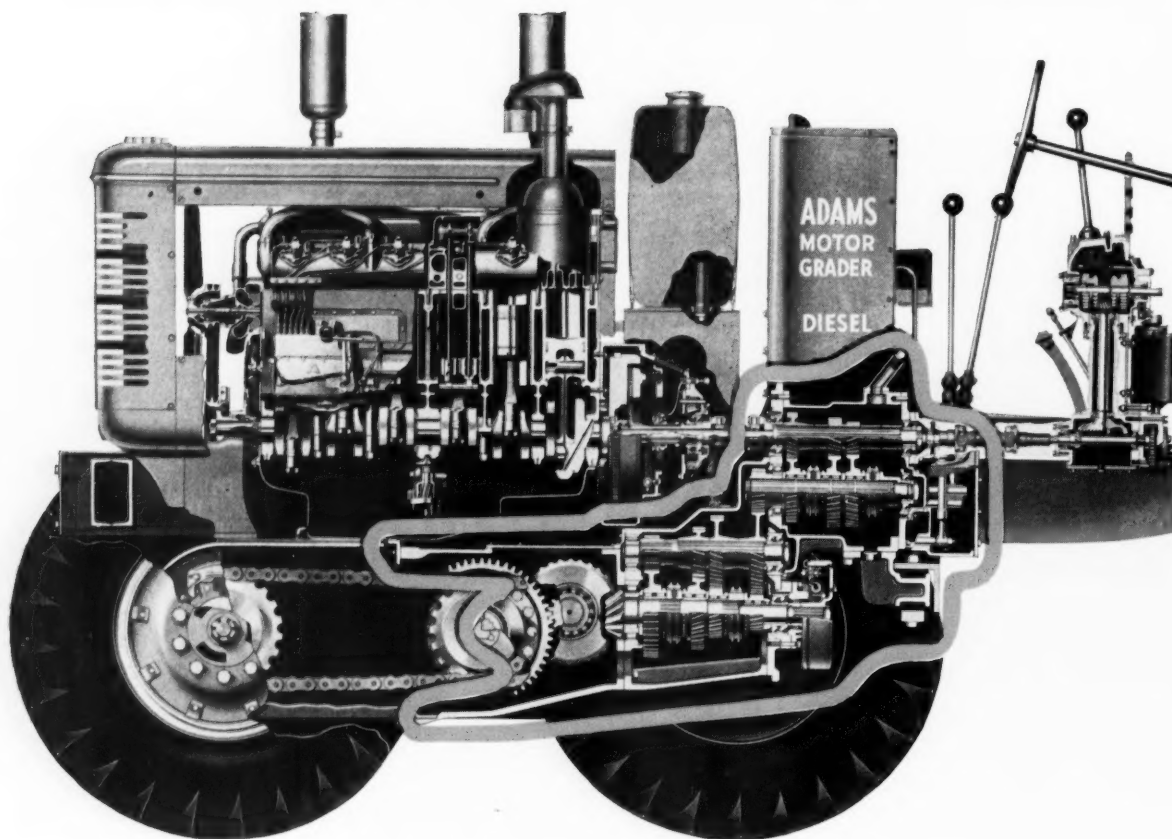
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For BIGGER and BETTER Concrete Mixers... Look to SMITH!



Adams Offers New Constant-Mesh Transmission

Features Helical Gears, Anti-Friction Bearings Throughout and Creeper Gear Option

All Adams 100 h.p. motor graders now feature a new Adams-built constant-mesh transmission and a new final drive which have more operating advantages, more quality and longer life built into them than ever before put into any motor grader.

All transmission gears (excepting low) are helical and are shaved and hardened for quietness, maximum tooth contact and long life. All free-running gears turn on roller bearings. Gear shifting is easy and positive due to direct connection between shift levers and transmission. The final drive has the full-floating rear axle which characterizes all Adams motor graders. All gears, shafts, bearings, housings, etc. throughout transmission and final drive are built with a safe margin of strength and durability.

8 Forward and 4 Reverse Speeds

The new transmission has 8 forward speeds found in all Adams motor graders furnishing a wide range of operating speeds plus a high transport speed of 25 to 26 m.p.h. New are 4 reverse speeds, ranging from approximately $1\frac{1}{2}$ to $13\frac{1}{2}$

m.p.h. which save time on contract work and backing to buck snow drifts.

Creeper Gears New Optional Feature

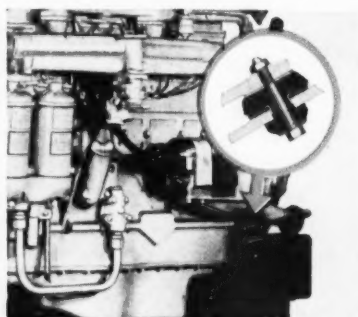
To permit extra-low speeds, desirable on some work, the new Adams transmission is designed to accommodate "creeper" gears which provide 3 speeds ranging from approximately $\frac{1}{4}$ m.p.h. to $1\frac{1}{4}$ m.p.h. These are in addition to the standard 8 forward speeds. The "creeper"

gears may be ordered as original equipment or may be installed at any time in the field at nominal cost.

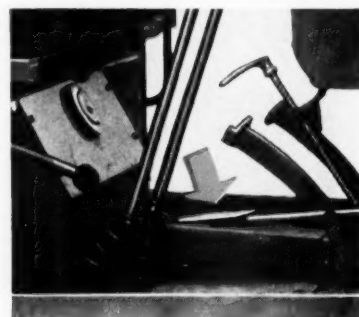
Dual Braking System Standard

The transmission has an external brake with internal expanding shoes which are actuated by the service brake pedal through the same hydraulic system which operates the wheel brakes. Braking efficiency is practically doubled. The same brake serves as a parking brake when set mechanically by parking brake lever.

New Transmission Also Brings These Improvements

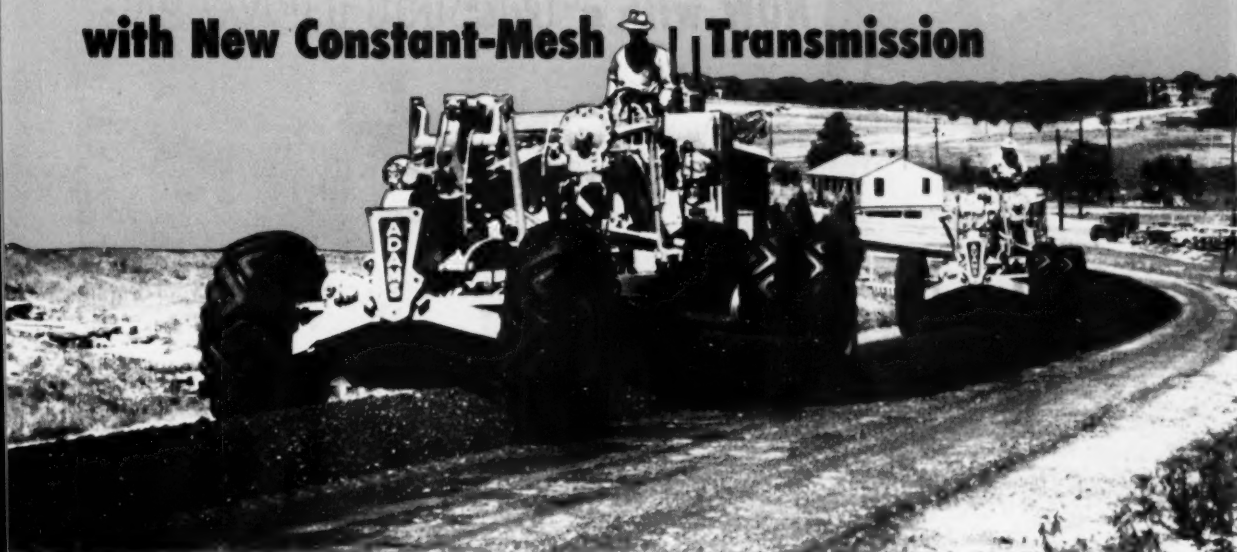


Engines are rubber-mounted. Engine vibration is not transmitted to grader frame or operator's cab. This reduces operator fatigue and prolongs engine life.



Foot accelerator permits operator to regulate travel speed as with a truck. Valuable in traffic on overland travel. Operator uses accelerator or hand throttle when working.

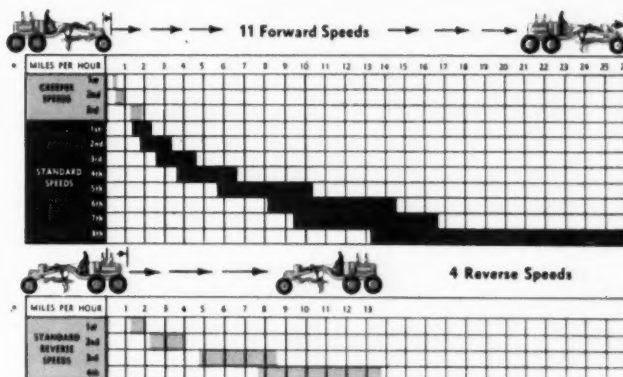
Contractor Praises ADAMS Motor Graders with New Constant-Mesh Transmission



● The Missouri Petroleum Products Co. of St. Louis are black-top contractors. Recently they put four 100 h.p. Adams Motor Graders with the new Adams transmission to work on scarifying old asphaltic concrete pavements and mixing and laying oil mat as pictured above. Mr. S. A. Whitmore, Const. Supt. is enthusiastic about their performance—their wide range of speeds—the high reverse speed and the fast transport speed. Further he says “they have more power and traction; will push larger windrows at higher speed which results in more work per day.”

Ask your local Adams dealer to show you one of these new, powerful machines. Phone him today.

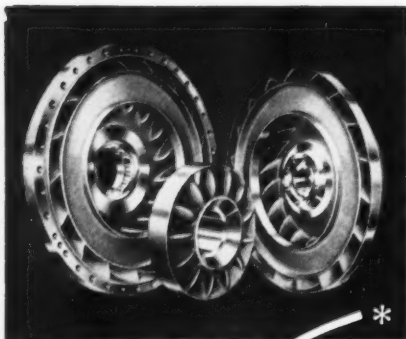
J. D. ADAMS MANUFACTURING CO., INDIANAPOLIS, IND.



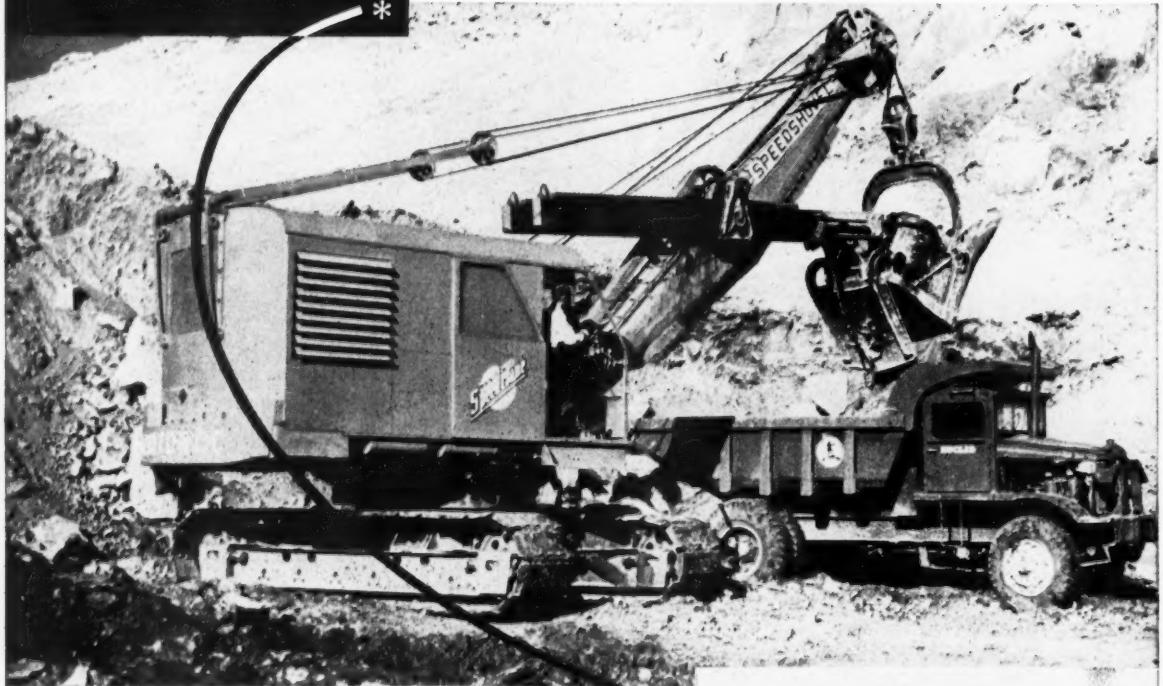
Charts above show the range of Adams 8 forward speeds and 4 reverse speeds which are standard in the new Adams constant-mesh transmission. At top are shown the 3 “creeper” speeds which are optional.

*Make your next
motor grader an*





Eventually **EVERY** Shovel Will be
TORQUE CONVERTER Driven
 But You Can Profit by its advantages
 NOW with a **MANITOWOC**



Get *extra* yardage, higher daily output, faster cycles, more bail pull, less breakage, smoother operation with a **TORQUE CONVERTER** equipped **MANITOWOC**.

Gives you *extra* power for tough going — smoother, faster acceleration throughout the entire cycle — enables you to handle bigger loads, shock loads, jars and jolts without damage to mechanism.

It's the greatest advancement in shovel history — and it's yours NOW, in the Maniwoc line. Maniwoc pioneered this development — more than twelve years ago — hundreds of units now operating. The big swing is to the mighty Maniwocs — Torque Converter driven. Get complete details from Maniwoc Engineering Corp., Maniwoc, Wisconsin.

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Engine operates at maximum efficiency at all times — full engine power for full loads — just enough power for light loads — automatically selected. Engine cannot be stalled — no delays waiting for engine to pick up speed.

SMOOTHER OPERATION

Oil cushion absorbs jolts and jars. Saves cables, clutches, gears and assemblies. Less down time means more yardage.

PRECISE CONTROL

"Fraction of inch" control by either hand throttle or foot accelerator, without slipping clutches or shifting speeds. Makes an expert out of an average operator. Ideal for crane service, setting steel and stone, and general erection work.



Trend Toward Maintenance by Contract Continues

» THE awarding of contracts for highway maintenance work is a growing trend. In several states and counties, the contract method is being given a trial and usually with high hopes of reducing the cost of that work.

New Mexico is the latest state to adopt maintenance by contract for trial rehabilitation of state highways. Early in 1953 *Contractors and Engineers* reported the action, saying, "It worked fine on the very first contracts."

The publication said the feeling of most officials in the highway commission was:

"We have experienced contractors. They're fine to work with. And they're delivering speed and economy; two things you don't often find together."

Contractors Lay Seal Coats

Two contracts were awarded in New Mexico, a 51-mi. section requiring installation of a heavy seal coat and an 88.6-mi. section on which a seal coat and a special leveling course were laid. Wheeler & Trotz, A.G.C., Albuquerque, did the work on the first stretch for \$57,000, furnishing the asphalt, equipment and labor while the state furnished the aggregates. Armstrong and Armstrong, A.G.C., Roswell, got the contract for the latter section on a price of \$206,000. The state furnished the aggregates on this job, also. The material was mixed in the contractor's plant.

Dr. Golden P. Silver, president of the Marion County (Ind.) Board of Commissioners, last April told readers of *The Builder*, official publication of the Associated General Contractors of Illinois, that maintenance by "road janitor" forces has not worked out for his county and that the county is planning to turn to contractors instead.

County Official's Opinion

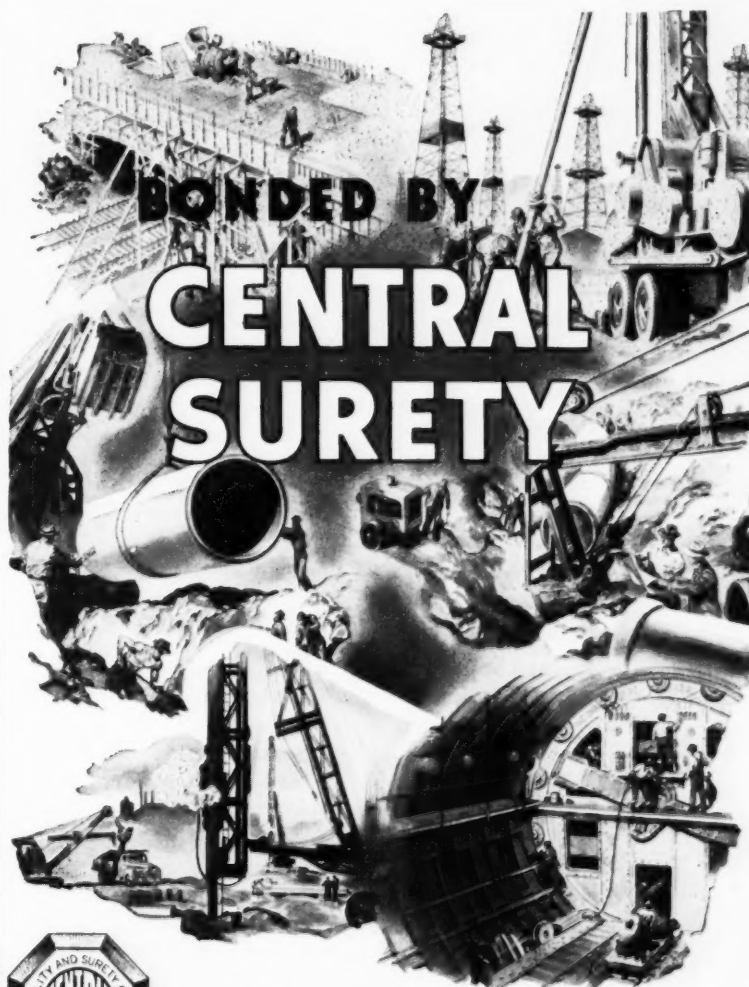
"Ever since I became a commissioner of Marion County, I have been studying the methods we use in taking care of our roads and then looking about for a better and more economical method. I think I may have found one. I've been told the contract system has several advantages over the day-labor system we now use. The biggest one seems to be that, when the work is done, you have a choice of accepting it if it's OK, or rejecting it

if it is unsatisfactory. Another big advantage seems to be that you can find out just how much the work is going to cost before you begin.

"Then there is another factor. There is still a big shortage of manpower, so more and more road work must be done by machines. In Marion County we are planning to re-

condition many miles of our roads by making deeper ditches, then rebuilding the surface. To do a lot of heavy grading and ditching we will need to use many large scoops and tractors as well as other heavy expensive machinery. These Marion County does not have. We don't own even one ditching machine.

(over)



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R. E. McGINNIS, President

HOME OFFICE KANSAS CITY, MISSOURI

"Now it is a well-recognized economic principle that idle machinery is an economic waste. The more expensive the machinery, the larger the waste. Contractors can keep this heavy expensive machinery busier than we can so we propose to try out the contract method of reconditioning our roads as a way of reducing waste. I am considering recommending to the

County Council a plan wherein we will try out the contract system to recondition several roads. We think we will get much better results—we will reject poor jobs and we will know just how much our work will cost before we start. We will at least make an attempt to save the taxpayers some money."

The Highway Magazine, a publica-

tion widely distributed by Armeo Drainage & Metal Products, Inc., ran the following editorial titled "Maintenance by Free Enterprise." It is typical of business thought on the subject.

"The day labor vs. contract method of highway construction has been the subject of many debates down through the years.

Major Benefits Noted

"The major advantages of the contract method include: (1) Competitive bidding brings lower unit costs, (2) Counties are relieved of the expense of purchasing, operating and maintaining much costly equipment, (3) Jobs are completed on time and as specified.

"Advocates of the day labor theory usually advance as their chief argument, the saving of the 'contractor's profit.'

"That this is not well founded has been pretty well proved by actual tests. Perhaps the most recent of these was in Audubon County, Iowa. They built roads, in 1950, for about \$4000 per mile using county equipment and county manpower. Similar projects let to contract were done for approximately \$2000 a mile. A 50 per cent saving for the contract method.

"Recently a number of localities have put some of their road maintenance operations on a contract basis. Minnesota has let contracts for pavement repairs; Kentucky for mowing roadsides and the like. Marion County, Indiana, is among the latest to turn some of their maintenance work over to private contractors.

More Maintenance per Dollar

"There is no reason to assume that the advantages of contracting road construction cannot be applied equally to maintenance operations. It should result in more maintenance per dollar.

"One word of caution. The success of any contract program depends to a great extent upon the availability of competent engineering service. However, this should apply equally to most day-labor operations.

"Much good work has been done by day-labor, but in these critical highway times—when there just aren't sufficient funds to keep up with needed road work—every effort must be bent to getting the most for our money.

"We believe 'free enterprise' is the answer."



Kapco Tongue and Groove Joint is easy to handle and install. Can be used either as a center strip or contraction joint. It is ideally suited for the "lane-at-a-time" method of constructing highways, and for airports and heavy duty industrial floors where it provides a "keyed" surface with high load transferring properties and eliminates the danger of spalling at the joints or the tilting of the slabs.

Kapco Tongue and Groove is pre-formed to provide maximum joint efficiency. It is available in standard 4½" to 9½" widths and 10' 1" length which allows for overlap. Punched to accommodate ½" deformed steel dowels and channel type steel stake pins. Kapco Tongue and Groove Joint consists of mastic board and asphalt saturated outside liners.

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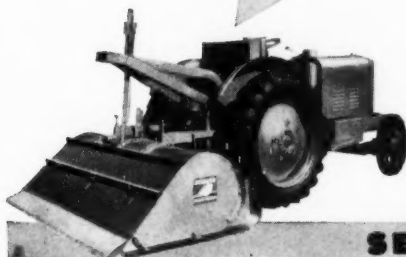
ROAD MIXING with the SEAMAN is the quick, low cost, efficient method. The SEAMAN is engineered and built specifically for that job—just as blades, for example, are built for grading, shoulder work and general maintenance.

The SEAMAN MIXER is designed to mix completely to the bottom of the full selected depth. No unmixed material at the subgrade—and no subgrade material brought up into the mix. Depth control is accurate and positive under all conditions.

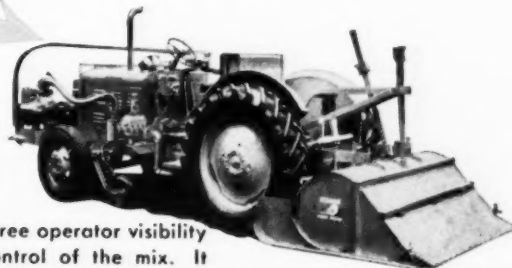
And you have complete command of the mix itself at all times. No worries about an unsatisfactory operation even when conditions are adverse, for with the SEAMAN an additional pass to bring the mix up to specification is done quickly and at low cost.

It pays to use the equipment which has been *designed* for its particular job. That's why more and more contractors and highway officials insist that *all* mixing be done with the SEAMAN.

FREE BOOK—The Seaman Self-Propelled Pulvi-Mixer and the SEAMAN Self-Propelled TRAV-L-PLANT are fully described in this new 12-page Bulletin. Also shown are many job scenes together with operational suggestions. Ask for Bulletin TPS. Send a postcard today.



The SEAMAN Self-Propelled (left) is a complete mixing unit which offers full 360 degree operator visibility and accurate control of the mix. It also frees a critical tractor for other work . . .



The SEAMAN TRAV-L-PLANT (right) offers all the advantages of the Self-Propelled unit. It is equipped with tachometer assembly and a volumetric meter is available for the closely controlled application of bitumen. Water also is readily applied.

SEAMAN MOTORS, INC.

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LeTourneau pictures of the month . . .



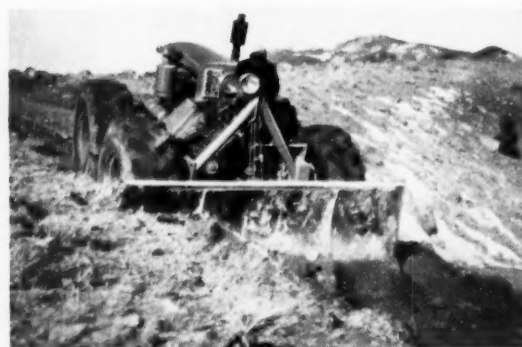
NO TRACKS, \$4500 SAVED YEARLY

—After 2 seasons of land-clearing in Florida sand, Zinke-Smith, Inc., Pompano Beach, say their Tournatractor tires show no wear at all. "Tracks," reports William Zinke, Co. Pres, "last only about 3 to 4 months in this sand. We have eliminated replacement of crawler pins, bushings and rollers which takes a good 2 days — and costs about \$1500 each time."



BUSY FOR THE CITY

—Piling garbage and trash at Longview, Texas, Tournatractor rolls constantly over scrap metal and glass without tire failure. Unit, selected after open competition with crawler-tractors, spreads, compacts, and covers all city's garbage in 2½ hrs daily. (City population: 25,000.) In spare time, it has cleared 40 acres of timber and brush for future dumping. It also drives over city streets to handle such assignments as grading parks, digging drainage ditches, and maintaining roads. "Rig has plenty of power and speed," says Operator J. F. Harkness. "It's so easy to operate I can do a full day's job without being tired out."



BUCKS 100 MPH WIND

—7,000 ft up on Black Mountain in Wyoming, this Tournatractor is licking icy 60 to 100 mph gales and 40% grades while building access roads and leveling drill sites for oil exploration. Owner Leon Hittshew reports Tournatractor is the "only tractor that can do the job". Its big rubber tires roll easily over boulders which cause crawler treads to slip and crawler steering to become difficult. Operator A. D. Clay has more comfort on a Tournatractor, too. He wears an electrically-heated flying suit which he plugs into rig's electric-control system for continuous warmth.



RIPS 20-IN. BLACKTOP

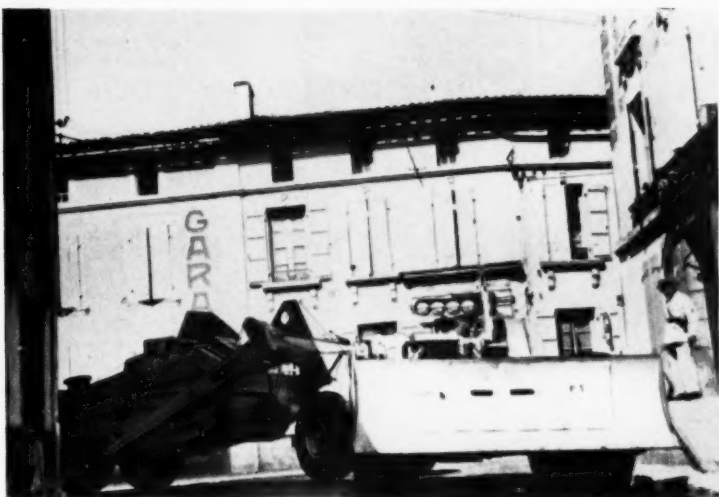
—186 hp Tournatractor tears up 2 to 4 layers (8 to 20 inches) of old blacktop preparatory to re-paving streets in Waunakee, Wis. Low-pressure tires do no damage to newly-set curbs, gutters. Like trucks, unit drives everywhere under its own power. "Saves \$50 over transportation needed for every move of a crawler," reports Dane City Hwy Dept, owners.



13 YDS EVERY 40 SEC

—Jack Darrough & Sons of Yuba City, California, used their Tournatractor with 5 C Tournapulls to help level 700 acres for a new orchard at Winters. Tournatractor push-loaded 13 pay yds of sandy loam every 40 sec, handled all 5 'Pulls on hauls as short as 800 ft. Rigs moved 70 loads hourly, did the job in 10 weeks.

performance reports from U. S. and France



235 MI IN 21 HRS—Moving across France, over main highways and through narrow city streets, a fleet of Tournatractors made a 235 mile trip in 2 days. Each unit towed a 12-yd LeTourneau Carryall. Average travel speed of 11 mph included stops for refueling, equipment checks, and meals. Top speed was about 19 mph.



FIRE-FIGHTER—In Missouri, Tournatractor helps combat stockpile fire by spreading burning coal. Continued use of this machine with its big rubber tires will effectively compact coal . . . greatly reduce possibility of further spontaneous combustion.



220 TONS HOURLY—A large Southern utility reclaims 220 tons (298 yds) of stockpiled coal per 50-min hr with their Tournatractor-Carryall team. Rig works 1000 ft "figure-8" cycle from edges of pile to centrally-located conveyor . . . makes 29 trips hourly. Operator says, "Tournatractor handles coal faster than anything I've seen in 9 years."



BLITZES PENN. RR STATION—To make way for a Philadelphia office building, McCloskey & Co. is razing the old Pennsylvania Railroad station. Their Tournatractor specializes in pushing heavy steel beams to a location where they can be loaded into trucks. Beams formerly served as track supports.



1 DOES WORK OF 6—Tournatractor does all the heavy work on Edward Dufresne's Green & Gold Plantation near Luling, Louisiana. Main job is pulling cane carts. Discing with 3 plows at once, unit averages 150 acres per 24-hr day. That's 4 times as much as 91 hp crawler formerly used and 6 times as much as a 51 hp cane tractor, says Owner Dufresne.

To: LeTourneau-Westinghouse Company

PEORIA, ILLINOIS

Please send illustrated book telling more about 186 hp tractor on rubber. We understand this request puts us under no obligation.



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Tournatractor—Trademark Pic 449-C



Meet the
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they couldn't
squash
or cut!



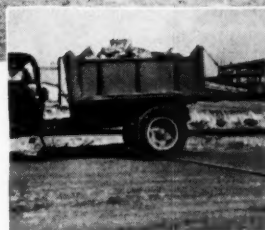
This immensely heavy crane rolled repeatedly over the U.S. Royal Cord Air Hose in left foreground. Hose remained unharmed, even though ground was paved with sharp shells.

In the 14 months it took to build a large aluminum plant in Texas, U.S. Royal Cord Air Hose took a beating which amazed construction men. 50-ton cranes on tractors, trucks carrying steel girders or gravel, ran over it again and again. *No cribbing was used.* The pavement was surfaced with very sharp and abrasive oyster and clam shells. Yet the hose suffered no damage, not even when carrying 125 pounds of water closed off at the end! Weathering and salt air had no effect on it. What's more,

every foot of the hose is now being used in the finished plant.

If there ever was a hose you can thoroughly abuse, U.S. Royal Cord is it. You don't have to waste time and money cribbing it. Move it about at will. It's the only cord hose built with true tire construction.

This is the sort of endurance you can count on in any United States Rubber Company product. There are 25 "U.S." District Sales Offices, staffed with engineers to serve you. Or write to address below.



Constant stream of heavily loaded vehicles at considerable speed roll over the U.S. Royal Cord Air Hose on hard packed roadway. Hose suffered no damage.

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Portion of the 3½-mi. prestressed concrete trestle section for the Tampa Bay Bridge described on Page 156. The 48-ft. main girders and the transverse diaphragms were stressed by means of Stressteel tensioning units, first use of the material in the U. S. Girders were cast and prestressed by mass production on shore.

- **Contractors Find Challenge In New Uses Of Prestressed Concrete.....Page 149**

- **Progress And Problems In Prestressed Concrete.....Page 156**



Contractor: Lundy Construction Company, Williamsport, Pa. Engineers: A. W. Lookup Company, Philadelphia, Pa. Architect: D. H. Grootenboer, Williamsport, Pa.

Economical Architectural Concrete made with Duraplastic* Rates an "A" in Appearance

THE NEW Theodore Roosevelt Junior High School in Williamsport, Pa., scores high in appearance as well as economics—construction costs are held down because architectural concrete serves as both structural and facing material. And lowest possible maintenance and insurance costs can be figured with durable, fire-safe concrete construction. For better concrete quality, Atlas Duraplastic air-entraining portland cement was used throughout.

Duraplastic aids proper placement with improved surface appearance because of its more workable, more plastic mix. It requires less mixing water for a given slump. And with Duraplastic, there's another big advantage—

The air-entraining feature, originated and developed by Universal Atlas, minimizes bleeding or water gain and segregation. Thus the finished concrete is fortified against the effects of freezing-thawing weather.

YET DURAPLASTIC COSTS NO MORE. These advantages are yours simply by specifying Atlas Duraplastic. It sells at the same price as regular cement and requires no unusual changes in procedure. Complies with ASTM and Federal Specifications. For more information, write Universal Atlas Cement Company (United States Steel Corporation Subsidiary), 100 Park Ave., New York 17, N. Y.

OFFICES: Albany, Birmingham, Boston, Chicago, Dayton, Kansas City, Minneapolis, New York, Philadelphia, Pittsburgh, St. Louis, Waco.

*"Duraplastic" is the registered trade mark of the air-entraining portland cement manufactured by Universal Atlas Cement Company.



DURAPLASTIC

AIR-ENTRAINING PORTLAND CEMENT



Makes Better Concrete at No Extra Cost

C. D. 150

Contractors Finding Challenge In New Uses of Prestressed Concrete

» THE Hardaway Contracting Co., A.G.C., Columbus, Ga., won a \$7.6-million bridge contract almost two years ago by offering an alternate design based on use of prestressed concrete.

The contractor had underbid other contractors in the contest, and his own other bid based on reinforced concrete, by \$184,000. The Florida State Road Department, surprised and pleased, approved the design and gave Hardaway the project—a 4.2-mi. section of the Tampa Bay Bridge. Using an advanced prestressed concrete technique developed by his subcontractor, the Preload Co. of New York, Hardaway is now installing 2,178 prestressed concrete stringers on trestle spans of the substructure. (See photos on Page 156.) At this stage of the job, engineers feel that the chance Hardaway took with a relatively unknown method in 1951 is proving its worth.

Method Comes of Age

On other projects, ranging in variety of size and design, contractors are finding wide use for prestressed concrete, a technique of construction which three years ago was only a mysterious term to most American builders. The fact that prestressing of concrete has "caught on" so quickly is testimony to the intellectual curiosity of design engineers and the willingness of contractors to try out new ways and means. A steel shortage spurred investigation of the method, but prestressed concrete as a structural material is proceeding on its own merits today on a widening front.

On drafting boards, designers are putting down more and wiser adaptations and, in laboratories, research engineers are testing the physical characteristics of prestressed elements under various conditions. On a number of construction sites, contractors are using the knowledge they have, prestressing where it seems reasonable and perfecting their know-how as they go along. A core of consulting engineers and subcontractors, highly skilled in prestressing operations, are developing new innovations and passing them on to architects and builders.

It is impossible to review all of a myriad number and variety of steps

being taken currently in research, design, and construction in this field. The whole can only be assumed from its parts.

Johnson Western Constructors recently completed a cotton warehouse in Long Beach, Calif., for which they cast, prestressed and erected eighty-two 75-ft. girders, each weighing 26 tons. The big modified I-sections, 56 in. deep, were constructed and placed at a total cost of \$1,800 each. The total prestressing labor per girder for both placing and stressing was approximately 32 man-hours. Reporting on the operation, the prestressing subcontractor, Prestressed Concrete Corp., Kansas City, said:

Saves Time and Material

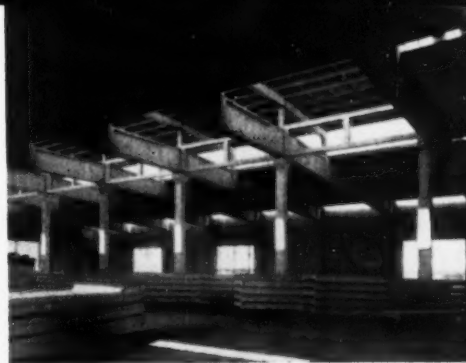
"The use of prestressed concrete in this application allowed a girder to be designed which was light enough to be precast and lifted into place, enabling the contractor to begin his casting operations at the same time the foundation work was started. The time savings resulting from such precasting, the shallower depth of the prestressed girder, the substantial savings in concrete and steel all resulted in a large reduction of cost for the roof structure over that which could be obtained from conventional reinforced concrete."

Heaviest Girders Prestressed

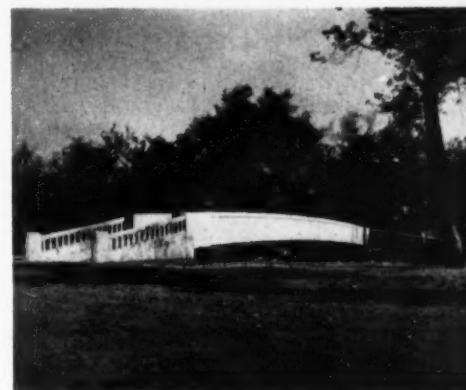
In downtown San Francisco, Contractors Barrett & Hilp, A.G.C., San Francisco, completed construction last November of a garage in which were installed what are believed to be the heaviest prestressed concrete girders in the United States. The huge elements, one of them 7 ft. 4 in. deep

TANKS—American specialists have long been successful in prestressing circular structures. Tanks up to 320 ft. in diameter, pressure pipes up to 84 in. diameter, and spherical shell roofs in spans up to 205 ft. have been undertaken. Special equipment to install and stress wires has been developed and labor cut down considerably.

The tank at the right is a water reservoir, 126 ft. in diameter, under construction in Wayne, Pa., by the Preload Corp. of New York.

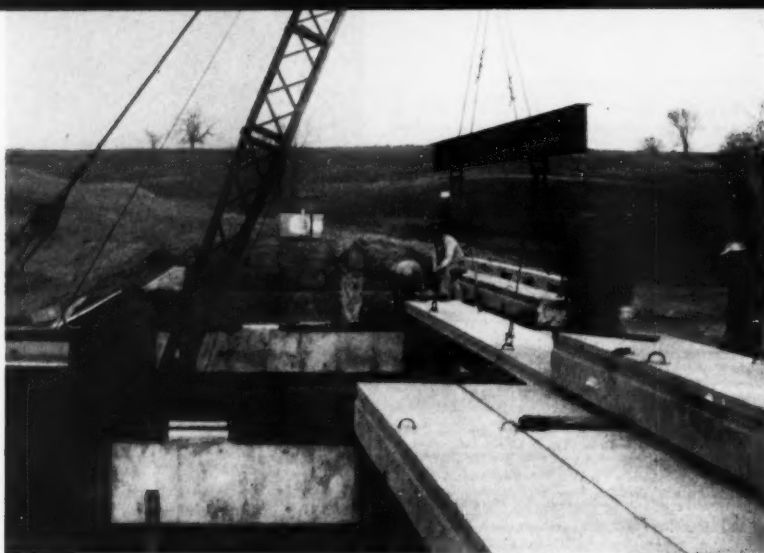


BUILDINGS—Prestressed concrete finds practicable use in beams where long distances are to be spanned, and reinforced concrete elements would be too heavy and bulky. Photo above is of Long Beach, Calif., cotton warehouse, showing prestressed girders 75 ft. long, 56 in. deep, designed to carry superimposed load of 1,000 lbs. per lineal ft. Each was prestressed with 12 Stresscon Cables and lifted into place. This structure is almost 100% precast elements. Walls were tilt-up.



BRIDGES—A number of prestressed concrete bridges have been developed in the United States since the unique test-to-destruction of the Walnut Lane Bridge in Philadelphia in 1949. The bridge above is the Arroyo Seco Channel Pedestrian Bridge in Los Angeles—the first prestressed concrete bridge in the West. It consisted of two simply supported girders, each with a clear span of 110 ft. Prestressed design took only 12,000 lbs. of steel compared to the 40,000 conventional design would have required and some \$5,000 was saved in formwork costs and by elimination of falsework.





The first precast, prestressed concrete bridge in Missouri goes into place in two days. The Quinn Construction Co., A.G.C., Kansas City, Mo., installed the 15 channel slabs weighing 11,000 tons each and the six 7½-ton curb sections which comprise the structure. The 21 structural units were hauled to the construction site.

with a T flange 8 ft. wide, are spans of 51 ft. to 62 ft. The largest girder was prestressed with 28 strands of 1½-in. high-tensile cable.

The steel shortage was a primary reason for consideration of prestressing in this case, but other justifications were found to apply. T. Y. Lin, asso-

ciate professor of civil engineering at the University of California, reported in *Civil Engineering*:

"Ability to maintain an adequate headroom without recourse to increased story height, together with savings in cost and critical materials, were the factors that made the decision to use

RESEARCH • METHODS

prestressed concrete for the building girders inescapable."

No Labor Difficulty

B. A. Stephenson of Barrett & Hilp has described briefly the labor and cost factors:

"We did not encounter any particular difficulty in instructing the workmen in the technique. In fact, there was nothing particularly different from the usual concrete construction except that the excessive size of the girders, and the fact that they had to be entirely supported until after stressing, necessitated heavier shoring.

"The actual stressing was supervised by Mr. Kent Preston, chief engineer, Bridge Division of the John A. Roebling Sons Co. This stressing took the services of Mr. Preston, the supervisory engineer from the staff of Ellison and King, structural engineers, and three laborers, for one week, averaging about one day for each of the five girders.

"As to comparative costs, we estimate that a saving of 10% to 15% was effected over equivalent structural steel girders since steel construction would have required concrete fireproofing and approximately the same amount of forming and concrete. Extra labor was involved in greasing the cables and covering them with plastic casing."

First in Maryland

The Maryland State Roads Commission has just begun construction of that state's first prestressed concrete bridge. It is a 100-ft. single span structure for which the Bonwit Construction Co. of New York holds the \$77,400-contract. The Freysinnet Co. of New York will supervise the prestressing operation.

These are examples of prestressing on the site. How economical and efficient this procedure will become depends largely upon the ingenuity of contractors, engineers and specialists in the method. Equipment to handle this on-the-site prestressing is being developed, thus cutting labor costs.

Factory Prestressing Grows

Great strides are being made in another direction—that is, the mass-production of precast, prestressed units on assembly lines from which they are trucked to construction sites as ordered. The contractor is not burdened with the specialized task of prestressing, and installation of prefabricated units is a relatively simple task. This becomes largely a machine

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job instead of a labor operation, thus eliminating a factor that long deterred adoption of prestressed concrete in the United States.

A number of contractors and engineers are finding successful use of precast, prestressed concrete elements, particularly as deck girders on small highway bridges. In these cases, the T-shaped units are laid side by side with only a small space between the top flanges to be filled in later with cast-in-place concrete.

In Springville, Ind., a small bridge with two spans each 28 ft. long and 24 ft. wide, was erected with a prestressed concrete deck. The job consisted of rebuilding the two existing abutments, adding two 12-ft. wing walls, erecting a center pier and installing the deck and handrails. The job was let at a contract price of less than \$11,000. The cost of the bridge decking, complete with curbs and steel guard rails was about \$6,400.

Bidding on Prestressed Units

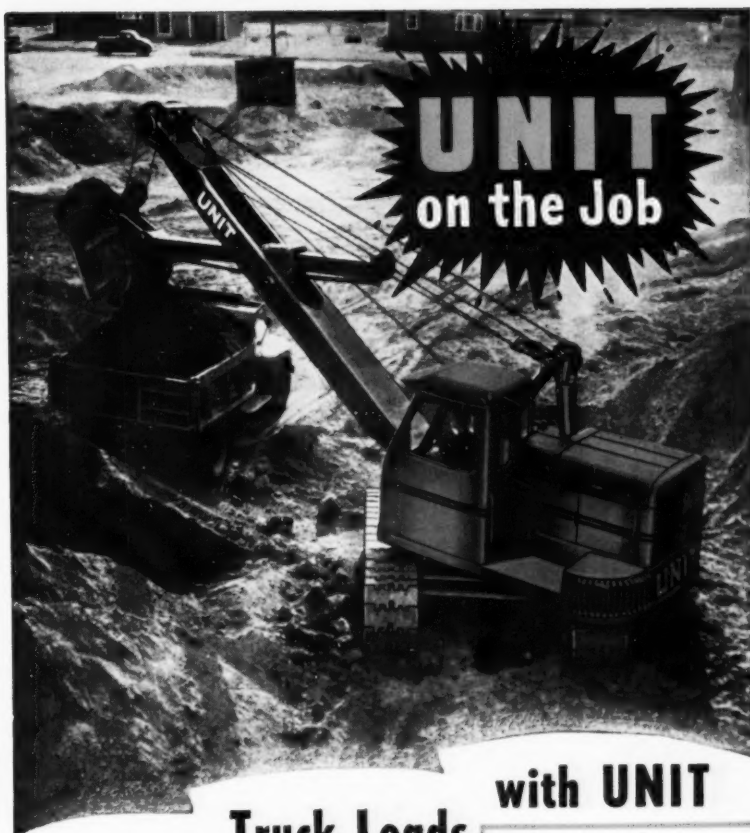
The Indiana Prestressed Concrete Co., Bedford, Ind., which produced the prestressed concrete units for the Springville job reports that contractors utilizing their prestressed concrete bridge deck beams are bidding from a low of 50¢ per sq. ft. to a high of 75¢ per sq. ft. for erection of the members, grouting, and joints.

"Considerable ingenuity is exercised by contractors in handling these beams," Philip Balcomb, general manager of the firm said. "As an example, the Springville bridge was set in its entirety with a light ¾-yd. crane in eight hours of operating time with a crew of five men."

Many Producers in Business

Producers of the prestressed concrete members are on the increase, seeking to furnish mass-produced units within trucking range of construction projects. An example is the Indiana Prestressed Concrete Co., mentioned above, which acts as licensee for Concrete Products Co. of America, a Philadelphia firm. These companies manufacture prestressed beams, assist in engineering when requested, provide a complete packaged deck unit including hardware for anchoring and tying the beams together, guard rails, bolts and rail, and will send a representative to assist in the installation. Such firms operate in many states.

The Prestressed Concrete Corp. of Kansas City reports that it has prefabricated packaged units which it



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Here's a UNIT ¾ yard Shovel that's "in there swinging" . . . making big payloads. UNIT'S balanced stability and power permit hard digging . . . produce maximum yardage at low operating cost. Fewer working parts cut down replacements required . . . reduce maintenance costs. The FULL VISION CAB enables operator to see in ALL directions . . . promotes safety . . . increases efficiency. Results in more loads per day and easier load handling. Get the complete UNIT story. Write for literature.

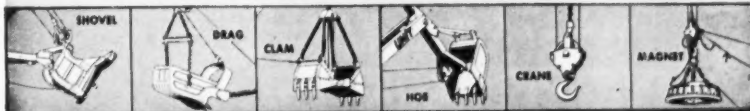
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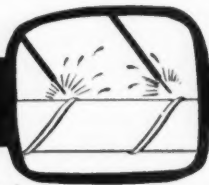
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RESEARCH • METHODS

ships to contractors, also renting out the jacking equipment. The company claims that the contractor can install the units with his own workmen, "since the installation is no more complicated than placing reinforcing and the jacking as simple as jacking a car."

Mass Production of Beams

In Concrete Products' plants, structural elements are produced in casting beds, 126 ft. long and 36 in. wide. In these beds, high tensile stress strands are positioned and pretensioned with jacks before the concrete is poured. Also before pouring, paper cylinders are placed in the forms, running the length of the proposed girders, to reduce their dead weight.

Concrete is poured from a bucket on an overhead crane, in a mixture thin enough to insure its flow, particularly around the wires where concrete and wires are expected to bond. Vacuum mats are placed immediately on top after pouring and vacuum pumps draw off about 35% of the original water. By then the concrete is stiff enough to allow stripping of the side forms.

With this system, factory output can reach 500 ft. of prestressed beams a week, and expansion of production facilities is not difficult.

Close Control of Quality

Close control of quality is another benefit of the factory prestressing operation. The Pennsylvania Highway Department official has approved assembly-line products after a year of intensive research and is using them widely. C. H. Buckius, chief engineer, gives other reasons for the state's approval—among them that the pre-



Prestressed concrete piles were constructed by the Raymond Concrete Pile Co., A.G.C., New York, to be driven in 100 ft. of water with 25-ft. waves, to support offshore oil drilling rigs. They stood up under several thousand blows with a 5-ton hammer.

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From modern turnpikes to improvement of small back roads, America is on the move to change the face of our highways. It means that construction equipment and component parts have a bigger, tougher job to do. Keeping pace with this job are Hyatt Roller Bearings. Specified throughout the years by leading manufacturers of road building and maintenance machinery, Hyatts are still leading the way—meeting these greater demands with advanced methods of manufacturing, modern heat treatment and rigid inspection from raw materials to finished bearings. As a result, Hyatts virtually eliminate friction, reduce wear, require a minimum of attention and help provide longer machine life. There's a size and type of Hyatt Roller Bearing for every construction equipment application. Hyatt Bearings Division, General Motors Corporation, Harrison, N. J.



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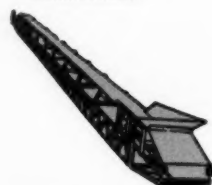
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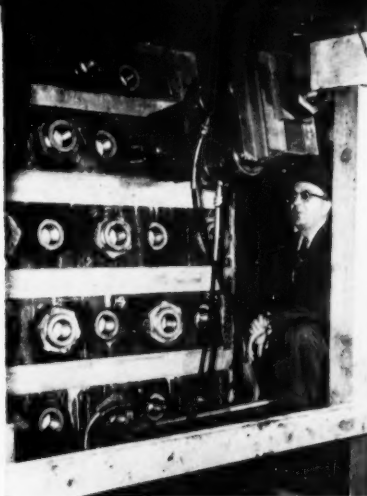
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Heaviest prestressed concrete girder so far attempted has 28 stress strands here being tensioned with 60-ton jack. The 62-ft. beam went into a San Francisco parking garage.

stressed units are more easily available and cost less than steel, that the cost of form lumber and carpentry are eliminated and that installation time and costs are cut.

The prestressing of circular concrete structures has been a phase in which several American firms have won distinction. It was the first adaption of prestressing here and progress is still being made, especially in the development of equipment to wind and stress the wires. The size of reservoirs and tanks which can be prestressed grows as these innovations are brought about.

Slabs for Builders

Builders are watching eagerly to see what will be done to make prestressed concrete slabs practical for use in floors and ceiling.

The Institute of Inventive Research, San Antonio, Tex., poured and prestressed the first prestressed concrete slab to be used in an American building early in 1952. The engineers cast the 38-ft. by 88-ft. slab on the ground and raised it by the Youtz-Slick method into position as a roof on a laboratory. They reported a steel savings of 62%. The 6-in. slab was prestressed both ways.

Highway Pavement Slabs Tested

Highway contractors may be prestressing highway pavement slabs if research now underway proves the technique practicable. Research engineers in the Kansas State Highway Department and Kansas State College are testing a small concrete slab 150 ft. long and 2 ft. wide.

The department reports, "If obstacles can be overcome, it may be possible to cut the thickness of the slabs from 9 to 7 and possibly even 6 in. An even greater advantage would be

lengthening the distance between joints to 500 ft. or more because these are the weakest parts of a concrete highway built by present methods."

There are a number of factors to be discovered. First there is the friction between the slab and the subgrade. Then there is the natural growth of concrete slabs. And third the matter of applying the stresses on vertical and horizontal curves.

Colonel W. P. Andrews, Cement and Concrete Association, London, England, recently described experiments in that country with prestressing of road slabs. He maintained that by increasing the prestress over and above that required to overcome temperature and subgrade restraint effects, the load bearing capacity of the slab can be increased and a thinner slab could be used, thus saving material.

"In our experience so far," Colonel Andrews said, "the longest length of slab that can be economically laid is 400 ft. . . . However, prestressing does promise very definite advantages, among which may be mentioned a saving of material in that a much thinner

section of concrete would be permissible without loss of strength; that the slabs could be very much longer and hence there would be fewer joints; that there would be a substantial saving of steel as compared with normal reinforced concrete construction; that the concrete being always in compression would not crack and hence such troubles as occurred from mud pumping could be eliminated and finally, that on bad subgrades which are impossible to stabilize there would be very good load distribution."

In all of these types of structures—buildings, bridges and pavements—there is reason to believe that prestressing of concrete has become or is fast becoming a technique that assures hitherto unrealized economies, beauty, and structural benefits. As contractors become better acquainted with its peculiar merits and learn to recognize where it can and cannot reasonably be applied, its popularity is bound to grow. This is certainly a field in which opportunities to develop and excel are measureless. Therein lies the challenge for the construction industry.

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Progress and Problems in Prestressed Concrete

By Curzon Dobell, M. ASCE and ACI

President, The Preload Company, Inc.

» IN the United States today, prestressed concrete has definitely established its superiority over reinforced concrete and structural steel for certain types of structures. Thanks to several important recent developments its potential sphere of usefulness has expanded to the point where it must be ranked with these materials as a basic medium of construction.

The thousands of linear and circular prestressed concrete structures, such as buildings, bridges, storage tanks and high-pressure pipelines, which have been erected in this country and abroad during the past 15 years have abundantly demonstrated the structural and economic advantages made possible by this new method.

Today, in making plans for a new structure involving long spans or heavy loading, the builder can no longer afford to disregard prestressed concrete.

Saves Steel and Concrete

It has repeatedly been shown that structural members in prestressed concrete can be built with less than half the concrete and a quarter of the steel required for a corresponding member in ordinary reinforced concrete. In comparison with structural steel, the savings in steel are obviously far greater.

These savings in basic materials reduce deadweight, which, in turn, means substantial reductions in foundation costs. Depth reduction achieved through prestressing main carrying members reduces overall building height. The longer spans made possible by prestressed design makes for maximum space utilization. Because of the low depth-to-span ratio inherent in prestressed design, structures far lighter and more graceful than those obtainable in reinforced concrete are achieved.

Cost of Labor Reduced

To complete the picture, the cost of the labor required to perform the specialized operations required for prestressing has been drastically reduced through several recent developments.

By means of the Leonhardt methods of prestressing, for instance, it is now possible to stress the elements of a continuous bridge consisting of several long spans in a single operation. Continuity achieves savings of about 25% of the steel required for simply supported prestressed beams. The Leonhardt techniques save about half the man-hours per ton of prestressing steel required by other systems for placing, tensioning and grouting the cables for the entire structure. Thus, combining these savings in material and labor, it has been shown that a

Specialists in Prestressing

Mr. Curzon Dobell, who has written the following article upon request of *The Constructor*, has won national reputation for his outstanding contributions in a field that is becoming of more and more interest to general contractors. He has written and spoken widely on the subject of prestressed concrete as a specialist since 1934.

The firm with which Mr. Dobell is associated reports that its particular service is to act as subcontractor in prestressing operations when called upon. The Preload Co. has helped to build more than 800 prestressed concrete tanks, furnishing to the general contractor the trained personnel and specialized equipment. The firm also acts as subcontractor or joint venturers on such structures as bridges and buildings where prestressed concrete methods might be more economical to the builder.

Preload Engineers, Inc., of Arlington, Va., is another firm which is prepared to aid general contractors in adapting one of the several prestressing methods to a particular structure. The consulting engineers help choose economical design, estimate material and labor costs, prepare design details and advise on patents involved.

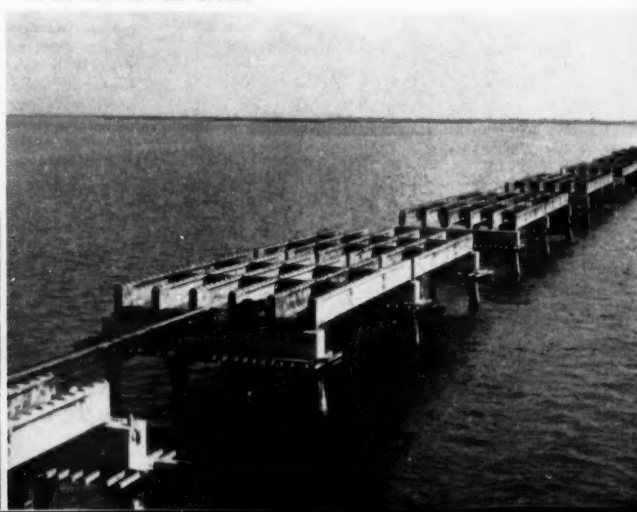
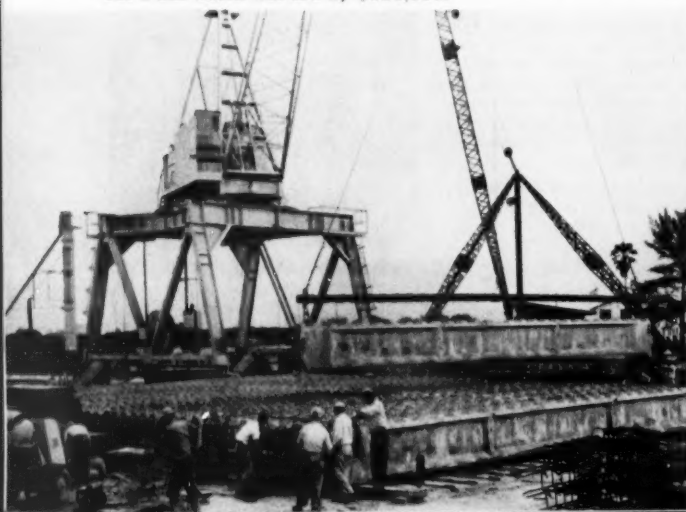
There are other specialists in the field of prestressing who usually are adept in one particular method.

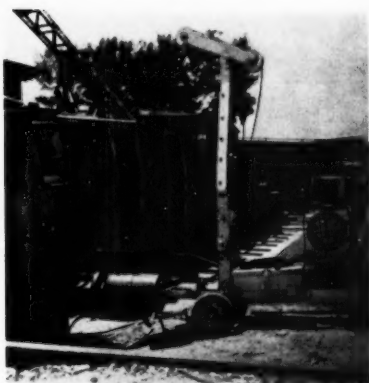
Leonhardt bridge can be prestressed with less than 40% of the man-hours required by other systems which employ wire or cables as prestressing elements.

These savings assume especial im-

Mass production of 2,178 prestressed concrete stringers for trestles on the Lower Tampa Bay Bridge is successfully handled on shore by the Preload Corp. under subcontract to the Hardaway Contracting Co., A.G.C., Columbus, Ohio. Crew at left is grouting the line of beams. Hardaway got the contract by submitting the prestressed concrete design for a bid which was low by \$184,000.

The 48-ft. span girders in place on a section of the long crossing. The process of fabricating the elements on shore is cheaper than cast-in-place would be and less hazardous. The six beams used as stringers for each 48-ft. trestle span are supported on pile bents. They are brought out on barges. Precast slabs weighing 62 tons each will form the 36-ft. wide trestle decks.





The girders on the Tampa Bay Bridge were post-tensioned (tensioned after concrete had been poured). To keep the 1-in. prestressing bars from bonding, they were run through the form in rubber hose. Here, seven days after pouring, a jack exerts a 37-ton pull on the bars. They will be anchored to a special anchorage nut.

portance in connection with current developments in American highway construction. The Preload Co. has designed, using the Leonhardt system, a typical throughway overpass such as will be built by the thousands for the various turnpike projects now being built and planned throughout the United States. The superstructure of this bridge which has spans of 40, 59, 59, and 40 ft., is only 22" deep—a depth-to-span ratio of 1:30—as compared to a depth of 44" for standard steel I-beam and concrete deck design.

In East Coast areas the superstructure of this bridge can be built for \$6 per square foot of deck. For H-20 S-16 loading, it would require only .0625 cu. yds. of concrete, 5 lbs. of standard reinforcing steel and 3 lbs. of prestressing steel per square foot of bridge deck. In addition the reduction of the superstructure depth makes for important savings in cut and fill necessary for approaches, especially in rocky areas.

New Prestressing Bars

The advent of *Stressteel* tensioning units marks another significant advance in reducing prestressing labor costs. These units consist of a high strength, large diameter steel bar plus anchorage assembly which can be placed, stressed and anchored for as little as 25 man-hours per ton of steel bars, as against an average of 140 man-hours per ton of wire used with the older forms of parallel wire end an-

(Continued on page 161)

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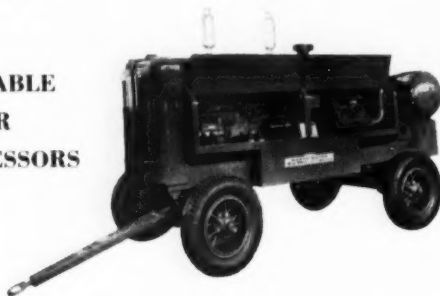
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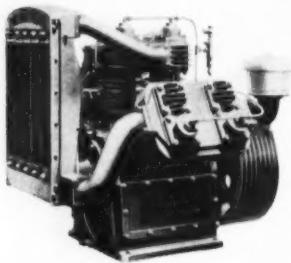
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Worthington Feather* Valve compressors are also available for stationary and semi-portable service. Available in seven sizes—83 CFM to 538 CFM piston replacements. They are mounted on bases and belt-driven by electric motor, gasoline or diesel engine. These units require no special foundation. Efficient two-stage air-cooling of compressor eliminates expensive piping in the use of cooling water. They may be moved inexpensively and quickly and are ideal for supplying air at remote points in a quarry. Standard control is completely automatic, arranged for constant speed operation with engine throttle control. Force-feed lubrication to all bearings with continuous oil filtering, airplane type connecting rods and fan cooling of isolated cylinders are exclusive features.

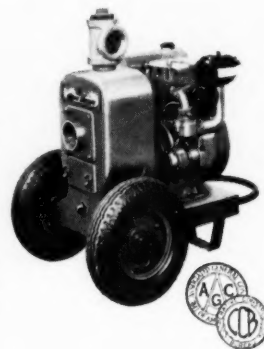
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Rock Drills. The WS-55, illustrated here, is a medium weight drill in the 55-lb. class. It is ideally suited to quarrying and mining work particularly where hard rock is present. Worthington Blue Brute Rock Drills are available in models from 45 to 80 lbs. drilling holes up to 30 feet in soft or hardest rock. They are known for easy handling, more footage, lower air consumption and minimum maintenance. Feed Shells available to make all sizes into drifter drills.



Wagon Drill. Model UMW-40 shown here is fast, easy to set up and easy to handle. Operators like its 360° U-arm movement in any direction and freedom from stuck steels. It can drill a toe-hole 2 ft. below grade, uses less air, stays on the job longer. 3" and 3½" drifters are also available.

Paving Breakers. Model WB-81 shown here is a fast, hard-hitting 80-lb. breaker for rugged quarry work, giving you amazing ease of operation for its size and power. Other models to suit varying requirements include the WB-85, a slower slugger for especially economical performance in average time using less air than high-speed machines of similar weight and the WB-50, a medium weight breaker offering unsurpassed performance on work of ordinary nature. The WE-34 is a light weight Worthington breaker.



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Worthington also offers a complete line of compressor and air tool accessories. These accessories are made to the same high quality standards as the compressors and tools and include the following: Hose, hose fittings, couplings, line oilers, rods, bits, paving breaker steels, columns and arms.

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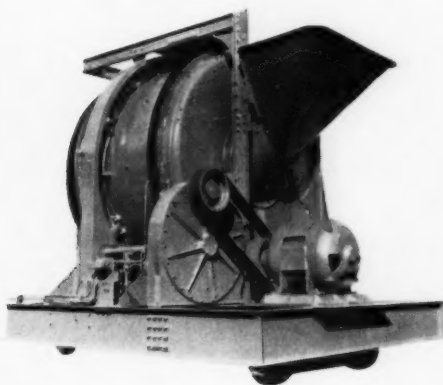
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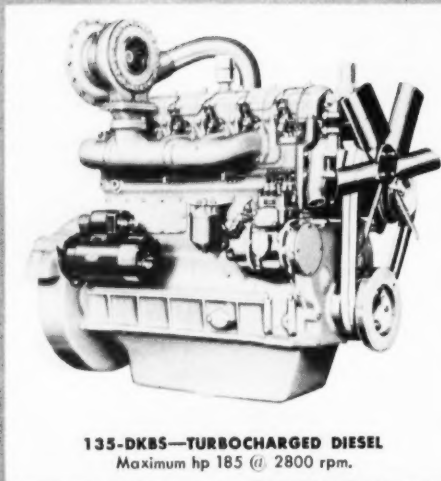
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RESEARCH • METHODS

chorage systems. Compared with wire, *Stressteel* tensioning units produce labor savings, which, at the prevailing wage scale for U. S. iron workers, will often exceed the cost of the prestressing materials.

The *Stressteel* bar was developed in England for use with the Lee-McCall system of prestressing, and its first use in the United States was in the 3½-mi. trestle section of the Tampa Bay Bridge, which is the longest prestressed concrete bridge in the world. Stresssteel Corporation began full-scale domestic production of the units at its plant in Wilkes-Barre, Pa., in June, 1953. The units are available on a price list basis in diameters of ½" to 1½" and in lengths up to 80 ft. through the Truscon Steel Division of the Republic Steel Corporation.

Still Highly Restricted

Properly designed, prestressed concrete can compete with structural steel and reinforced concrete in a wide variety of structures. Yet, despite this acknowledged fact and the almost unprecedented interest which the construction industry at large is currently displaying toward prestressed concrete, its use in this country is still highly restricted.

The reasons for this situation are somewhat complex, but resolve into the fact that the general contractor, the owner, the engineer or the architect who desires to make use of prestressed concrete invariably finds it difficult to do so under our traditional pattern of unrestricted competitive bidding.

This is principally the result of obstacles self-imposed by the prestressing industry itself. The great majority of engineers who have the background of knowledge and experience necessary to prepare complete designs in prestressed concrete are employed by, or affiliated with, owners of the various patent-protected proprietary systems of prestressing. These owners, in turn, derive their principal revenue from serving as subcontractors for performing prestressing operations under their respective systems, or from supplying prestressing materials.

Promotion of Processes

In their attempts to develop business, the system owners have made it a practice to provide designs for proposed structures free of charge, either as alternates to conventional design, as closed designs, or in competition



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with other prestressing systems. These speculative designs are invariably tied in closely with the prestressing system which the system owner controls through patents, very often to the detriment of the basic engineering requirements of the structure. The system owners take this gamble in anticipation of regaining their design costs plus a substantial profit through obtaining the sub-contract for the prestressing portions of the work.

Disadvantages Noted

The disadvantages of the procedure described above are obvious:

1. It is cumbersome, usually requiring several designs to be made for the same structure.
2. The owner or builder does not necessarily realize the maximum economic or structural advantages which prestressing has to offer for the structure.
3. Unrestricted competitive bidding is precluded. This is especially important in the case of our public authorities and governmental agencies.

In addition, when faced with a prestressed design, the general contractor also has his problems. He frequently does not have the experience from which to judge the cost of prestressing operations, which often may appear to be more difficult than they actually are. Specifications often require the contractor to perform costly tests and to provide guarantees and bonds against patent infringement and faulty design far in excess of those usually required for conventional design.

Faced with these considerations, the general contractor has no recourse but to include these extras in his bid, with an ample contingency factor.

Dilemma for the Industry

Consequently, the construction industry is in a dilemma on the subject of prestressed concrete. On the one hand it is keenly aware of the potentialities of this new medium. On the other hand, because of the situation described above, it often has great difficulty in making use of prestressed concrete in actual practice. To resolve this dilemma, the construction industry must have available two basic facilities.

1. Impartial firms of consultants with the background and experience required to provide a full range of engineering services in prestressed design, and
2. Specialist sub-contractors competent to perform prestressing operations.

150 Engineers Study Method

The Joint ASCE-ACI Committee 323 on Prestressed Concrete has recently nominated a Steering Committee comprised of six members which in turn has appointed fifty-six task groups including a total of more than 150 engineers interested in prestressed concrete to compile an authoritative recommendation for design, materials and construction in prestressed concrete. It is expected that this task will take some two years to complete.



Preload Corporation's design for New York State Thruway grade separation bridges using Leonhardt system of flat slab prestressed concrete continuous over four spans—40 ft., 59 ft., 59 ft., 40 ft. Depth of slab—22 in.

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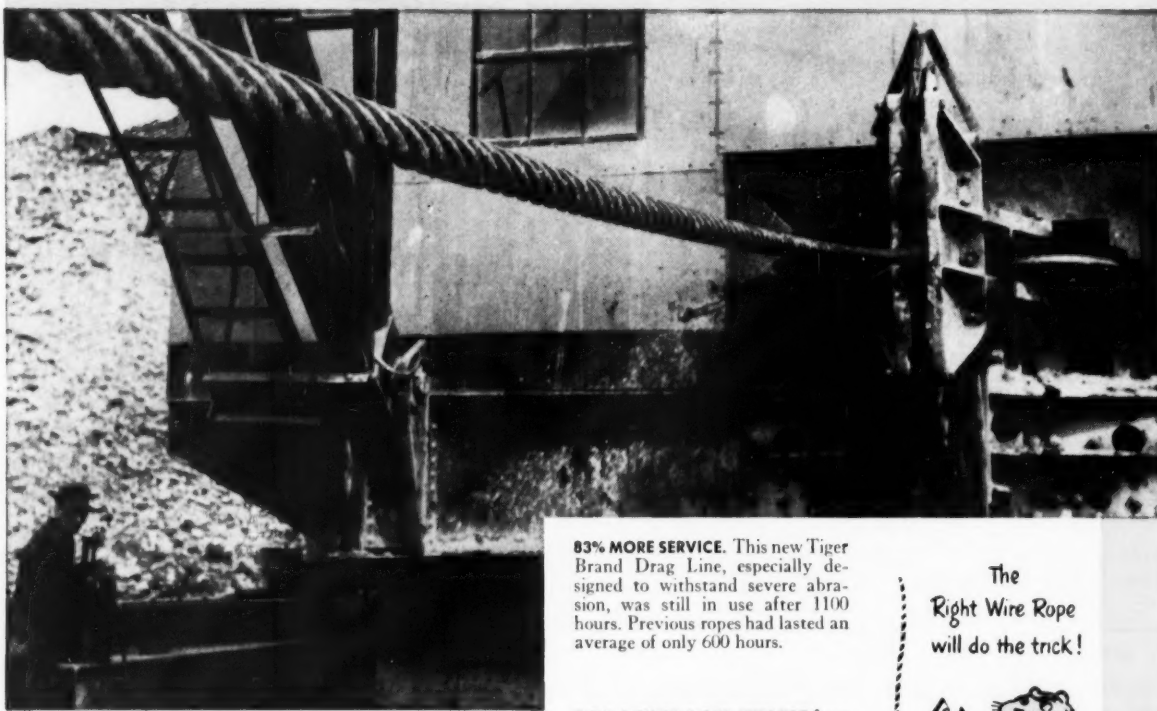


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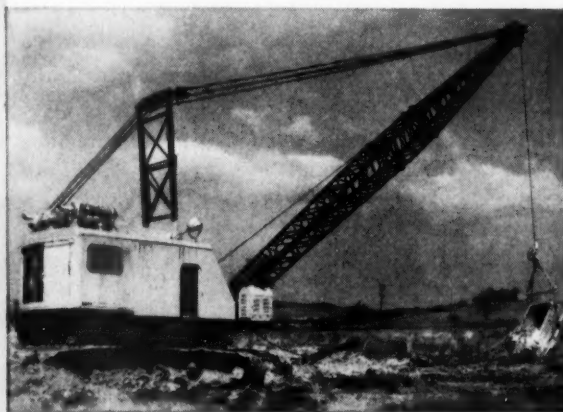


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» IF JURISDICTIONAL disputes in the construction industry are to be understood, a few basic features of the industry and its collective bargaining must be briefly noted. The question naturally arises, why all the jurisdictional trouble in this industry in comparison to other industries? The following factors help to explain the context which helps to produce work assignment disputes.

- Construction work takes place on continuously changing sites. Jobs are of short duration and the work force

Jurisdictional Disputes: 10 Types

By John T. Dunlop

Chairman, National Joint Board for Settlement of Jurisdictional Disputes

changes in its craft or skill composition frequently during the course of a project as work moves from excavation to final painting. Stable personal and organizational relations do not ordinarily develop within such a work force as they do in an industrial plant, and these changes afford

many opportunities for work assignment friction.

- If disputed work continues, normally in a short time it will be completed. From this fact there is derived the tendency to shut down disputed work or to strike a project. In an industrial plant the disputed operations are likely to be performed indefinitely in the future and settlement can be achieved without stoppage more readily. On construction projects there is frequently a penalty if work is not completed by a specified date; this fact encourages the threat of strike and work stoppages by unions in work assignment disputes.

- There are a great variety of contractors: general and specialty contractors, and they are frequently in strenuous competition with each other. Some contractors have agreements with some trades and some with others. The competition among contractors frequently takes the form in which some contractors and most closely associated unions are competing with other contractors and the unions most closely aligned with them.

- The Unions in the industry are organized on a craft or a multi-craft basis into 19 international unions affiliated with the Building and Construction Trades Department, AFL. These unions regard each as having an exclusive jurisdiction of work operations granted by its charter with the AFL. The form of union organization in the industry, which itself has been influenced substantially by the form of contracting, contributes to work assignment disputes. There might well be fewer such disputes with a smaller number of unions or with a single industrial union in the industry.

- The migration of contractors and workmen accentuates work assignment disputes as superintendents or workers seek to introduce work assignment practices in one locality to another.

- Foremen are typically members of a union and even superintendents have been union members. These connections may tend to influence work assignments.

These basic features of the construction industry account for the prevalence of the work assignment dispute. As long as these underlying



John T. Dunlop has been chairman of the National Joint Board since it went into effect May 1, 1948. During World War II he was a public member of the Wage Adjustment Board for the construction industry. More recently he was public member of the Wage Stabilization Board. This year he has been on sabbatical leave from the Harvard Littauer School of Public Administration to do writing. Views expressed in this article are those of the author and not necessarily those of the A.G.C.

characteristics remain, jurisdictional disputes will remain. While it is probably impossible then to eliminate jurisdictional disputes in the construction industry it may be possible to establish procedures to reduce the number of work stoppages and to shorten the duration of others that do take place. Such procedures may be prescribed by law, by the unions alone, or by the unions and contractors together in collective bargaining.

Thousands of 1952 Disputes

After the passage of the Taft-Hartley law the National Joint Board for the Settlement of Jurisdictional Disputes was established, effective by May 1, 1948, by an agreement between the 19 international unions affiliated with the Building and Construction Trades Department, AFL, The Associated General Contractors and eight national associations. This Joint Board was intended to provide machinery to adjust jurisdictional disputes and to preclude such disputes reaching the NLRB. In the intervening years the NLRB has made decisions or issued orders in almost no case within the competence of the Joint Board (actually 3 cases). In the year 1952 the Joint Board alone handled approximately 560 work stoppages on work assignments and several times that number of disputes.

These work stoppages and disputes over work assignments are the outward manifestations of a great variety of problems. They are akin to the one-eighth of the iceberg that is visible. The complexities beneath the surface have almost infinite variety. An attempt has been made in the following pages to classify and illustrate some of the principal types of disputes which may take the form of a work assignment controversy or jurisdictional stoppage. These cases are representative of the full range of disputes which outcrop as jurisdictional work stoppages. These actual cases will facilitate appraisal of the adequacy of preventing these work stoppages by legislation or by court or administrative order. This classification may assist a contractor confronted with a jurisdictional dispute to analyze the real nature of his problem.

(1) No Work Assignment

There are some instances in which a contractor makes no assignment of work and construction operations are actually performed in a variety of

ways on a project. A contractor in Chattanooga, putting on transite siding, describes the following events before having his project shut down by a walk-off of carpenters:

"At the start of the job ironworkers put some transite on in their spare time; carpenters did the same. The men doing the work took it upon themselves to do this. We received a large shipment of steel so ironworkers started the erection of steel. At the same time carpenters started back on concrete form work. In a few days the carpenters got caught up on form work and started putting on transite. There were no roofers on the job at the time; consequently the roofers did not know about the transite. When the roofers found out about the transite we had them put it on."

This episode constitutes a negation of the whole idea of jurisdiction; it implies that any group of workers should be free to perform any work. In this case the management did not consciously face the problem and take the responsibility to make a specific work assignment.

(2) Changes of Assignment

In Houston, Texas a contractor was putting in a metal ceiling using sheet-metal workers. Around the edge of the ceiling was to run a metal moulding. The contractor started the moulding with sheet-metal workers, and then on representations of the carpenters changed to use that trade on the ground the moulding was trim. The sheet-metal workers went on strike and placed a picket line. A significant number of jurisdictional stoppages arise from shifting work assignments by superintendents. Changes in assignment may arise from pressure from business agents, from shifting requirements of various crafts on a project, from ignorance of previous assignments and from poor administration and management.

(3) Transfer of Practices

A contractor received a new contract for the expansion of power facilities at Shadyside, Ohio. On the initial work, which was still in process, local and international representatives of all the unions and the initial contractors had entered into a written memorandum of agreement settling a number of difficult jurisdictional questions including the unloading of pipefitter's materials with power equipment which was allotted to the ironworkers and the installation and operation of a dewatering system which was agreed to be the work of the operating engineers.

The contractor chose to make a different assignment on these two items to the Plumbers and Steamfitters with the result that the other trades walked off the project. There is no question of the legal right of the new contractor to make his own assignment of work, although there may be doubt as to the wisdom of trying to change a practice on identical work established for several years on a project by agreement of all parties. The new contractor may be following an assignment he has used elsewhere, or may be reflecting the judgment and affiliations of a superintendent, or may be yielding to strong suggestions of a union which has a great many men employed by the contractor on other jobs.

(4) Competition for Work

A large class of disputes concern the dividing line of work which might be performed in the contract of the general contractor or various specialty and sub-contractors and work which might be performed in one rather than another specialty contractor. In these cases the interests of certain contractors and their allied unions are arrayed against other contractors and their allied unions. The contractors have as much interest to get the most possible work in their contracts as the unions do in getting the most work for their members. The work assignment dispute is not merely an inter-union dispute but also an inter-contractor dispute.

A very common dispute has concerned the division of work between laborers and plumbers in the installation of water and sewer systems in a large industrial plant. The plumbers are to install the pipe within the actual building. But who is to unload and distribute the pipe along the ditch if the connections to the plant are long? The contractor who puts in these pipe lines within the building may have an interest in securing this work just as the contractor who may dig the ditch in which the pipes are to be laid. The actual dividing lines are the subject of complex jurisdictional agreements and decisions and may not be the same for non-metallic sewer and water piping systems as for other types of piping systems, such as fire protection, steam, oil, gas, and industrial waste.

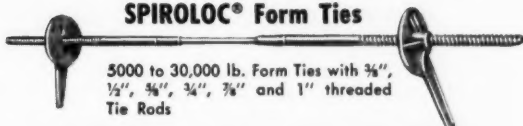
In the case of unloading railroad cars on trucks, particularly with power equipment, there is a similar conflict

(Continued on Page 171)

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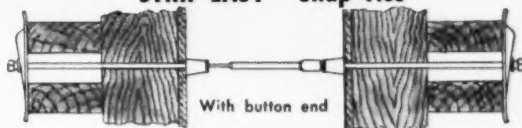
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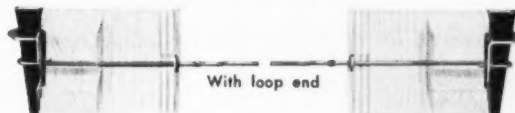
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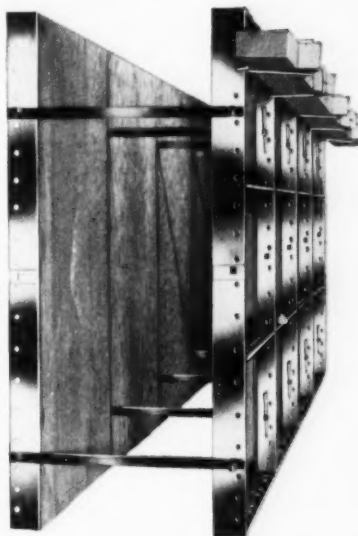


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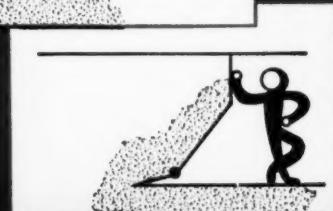
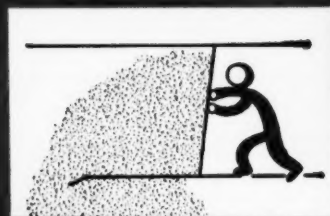
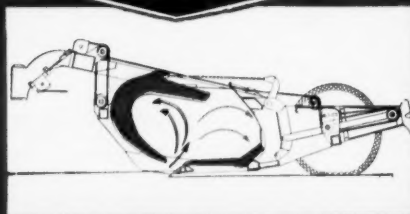
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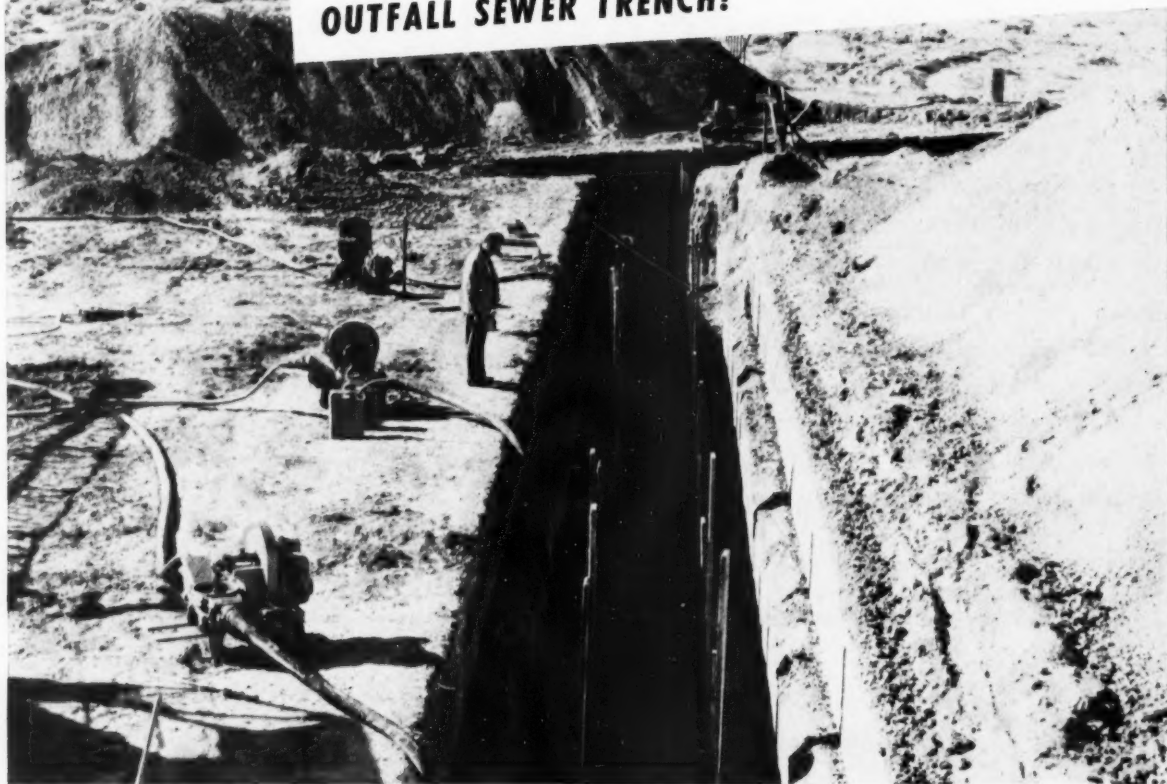
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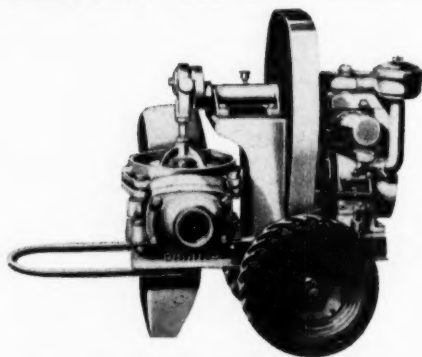


Step-down berm construction of the 14½-foot-deep sewer ditch on the Vukich-Brown outfall sewer job for Lancaster, California. Barnes Diaphragm Pumps work day and night to keep lower 10½ feet dry as pipe is installed.

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(Continued from Page 166)

of interests. Shall control over a piece of heavy equipment be taken by the trade (and the contractor) who is to install the same at the car or truck, at some stockpile or warehouse on the job site, or at a point approximate to its final position? Shall ironworkers and their rigging contractors take heavy equipment to be installed by steamfitters, electricians, or boilermakers to the anchor bolts or nearby or should these trades and their specialty contractors take control of the item at the railroad siding? The most frequent single jurisdictional dispute in 1952 concerned this unloading dispute between the ironworkers and the steamfitters and their respective contractors.

(5) New Methods and Materials

A contractor in Indianapolis had been using carpenters to install a finished acoustical ceiling by conventional method. He then began to blow on with a gun a finished surface which resembled plaster and which served acoustical purposes. The plasterers claimed jurisdiction and struck the project. Consider another example: in years past the sheet-metal workers (coppersmith) used to make in their shops from sheet copper the pipes and coils to be installed in breweries. In more recent days copper pipe of the required dimensions has been manufactured in regular factories. The plumbers and steamfitters then claimed the installation of these copper pipes on the grounds that they were similar to all other pipes in breweries installed by their craft while the sheet-metal workers claimed them on the grounds of tradition and that they were made of copper. Technical change which takes place in this industry leads to jurisdictional disputes when it disturbs the allocation of work among trades and contractors. Technical change is a significant factor at the border lines of jurisdiction, but it is not the most important factor creating disputes as has been frequently presumed.

(6) Local Union Internal Problems

Business agents are ordinarily elected for short terms of one or two years. Campaigns for local union office may at times involve the charge that the incumbent has been too lax in pushing jurisdictional claims as set forth in the international constitution and by-laws. Associated with such

campaigns, or to fulfill election promises, a business agent of a craft may seek to change jurisdictional lines that have been taken for granted in a locality. A new business agent may seek to take a tough position and extend his jurisdiction. The result may well be retaliation by other crafts and difficulties on existing projects.

(7) Rivalries in Local Councils

The various local unions of the international unions affiliated with the Building and Construction Trades Department, AFL, in a locality are expected to be affiliated with a local building trades council. There are approximately 600 such councils throughout the country. Membership in such councils is not required by the Department. These councils are not empowered with the exception of New York, Chicago and Boston to make jurisdictional decisions, but they do serve as a forum in which such problems are frequently discussed and disputes mutually adjusted. Factions in a council may contribute to jurisdictional disputes. Local unions of a trade may even withdraw from the council for extended periods.

In Lawrence, Massachusetts a paper machine was being installed by an owner who had been attracted to the depressed textile community by the local development council. The carpenters and millwrights had withdrawn from the building trades council. On the pretext that the carpenters were doing some cleaning work all other trades withdrew from the project. The conflict between the carpenters' business agent and the rest of the council was an underlying factor. Perhaps, the trouble was also stimulated in part by a contractor interested in having the owner contract the work out rather than perform it himself.

(8) International Union Relations

In the building trades there are 19 international unions and accordingly 171 possible combinations of relations. Perhaps only ten or twenty are significant for recent disputes. The relations among the top officers of these unions change frequently, reflecting a variety of circumstances. The international representative and staff are very sensitive to these changing relations which in turn are reflected very quickly on particular projects. Two general presidents may have had a falling out over alleged bad faith; they may have failed to reach an agreement on a jurisdictional issue. One

president may have decided that a weak local in an area had failed adequately to protect and to enforce jurisdiction and a campaign to correct the situation is in order. In these changing relations specific orders may go to international representatives and subordinate bodies to enforce claims to particular work. These orders can be expected to be followed by a period of jurisdictional disputes and stoppages on the particular issue. Conversely, international general presidents may enter into agreements with others; the word may go out through the grapevine that relations have been improved and that local unions are to get along; they are to "give and take" and "live and let live."

The development of a full agreement between two international unions on jurisdiction may create temporary difficulties and work stoppages. The agreement will mean that henceforth there needs to be more uniformity among localities in work allocation. These adjustments to the national agreement may be painful in some localities and involve temporary difficulties.

(9) Problem Areas and Localities

Relatively few jurisdictional disputes occur in the larger cities of the country with union conditions well established for long periods. The records in Chicago, New York, San Francisco, Seattle, Salt Lake City and Cleveland, for example, are quite good. This list should not be regarded as any more than illustrative. There may be occasional outbreaks even here, but they are rare. Jurisdictional disputes tend to be concentrated geographically in isolated or remote areas where there has been little large scale construction and in certain problem areas or cities. In remote areas many types of work have not been performed and disputes arise when the type of work is first introduced. In remote areas large projects require the importation of workers and supervisors with diverse backgrounds and experiences. Projects in remote areas bring together business agents who may not have previously worked together. All these factors may contribute to jurisdictional difficulties on large projects in remote areas.

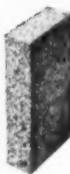
There are some localities which are "tough" labor relations cities in this industry for a variety of reasons. The history of labor relations in these localities, contracting practices, local

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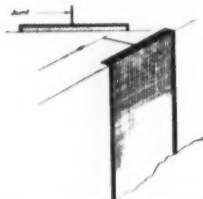
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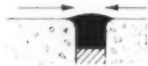
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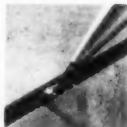
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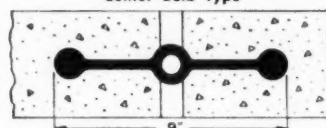
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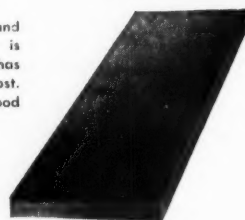
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LABOR RELATIONS

governments and a variety of other factors would help to explain present conditions. A jurisdictional work stoppage in this setting is frequently a reflection of the wider community problem.

Atomic Project Disputes

The Paducah, Kentucky atomic energy job has received widespread public attention as a problem project. There were 61 work stoppages on construction between the outset of the project in December 1950 and March 1953; only several of these strikes concerned jurisdictional matters. The difficulties can be attributed to a wide variety of circumstances. (a) *The Community*: The southern Illinois area has known widespread labor-management difficulties, including the coal troubles of the early twenties. There are labor rivalries across the Ohio river. At the construction peak as many as 20,000 persons were living in trailers. The schools and other community facilities were inadequate. (b) *The labor side*. Many workers drawn from nearby rural areas had little industrial experience or discipline. The small local unions were suddenly expanded rapidly in responsibility. The leadership was not accustomed to such large projects or memberships. Internal affairs including financial records were not always handled in accordance with standards of the international unions. There was a rival group which cut across crafts seeking to secure autonomy and preference for Kentucky residents. (c) *The management*. The company was compelled to begin work in the defense rush after Korea without adequate preparation. Its supervision was drawn from various localities; there was considerable turnover in labor relations directors. The lines of authority between superintendents and the labor relations department were not clear. The Company was concerned with avoiding violations of Taft-Hartley in an industry with the traditions of the closed shop.

By fall of 1952 the problem of stabilizing relations came to a head and the parties, with the assistance of the Atomic Energy Labor Relations Panel, worked out procedures which have very substantially improved the relations and the record of time lost from work stoppages. A monthly meeting of international representatives with the company has had salutary effects. The significant question about such localities is what can be expected of formal

charges before the NLRB to settle a jurisdictional dispute in the context of such a problem area.

(10) Work Load Questions

The operating engineers in Buffalo requested a painting contractor to use an engineer on the compressor used to run the spray guns. The contractor refused and the operating engineers then picketed the project. The painters may even agree that the work of running a compressor is within the jurisdiction of the engineers rather than the painters. In this case there is no jurisdictional dispute between the trades. There may be a dispute between the engineers and the contractor as to what size of compressors and how many compressors may be involved before an engineer is required for the project. An apparent jurisdictional dispute in this situation is actually a question of work load. Is any engineer required, or how much work should there be before an engineer is required?

No careful statistical study has been made to determine the relative importance of each type of dispute; not enough information is available on the background of each dispute.

A classification of jurisdictional stoppages in the above detail suggests that any one cure may not be equally adequate to the settlement of all these types of disputes. A general prescription does not exist for all disease, and no single formula will settle all work stoppages, even those alleged to be jurisdictional and of the work assignment variety. It may well be contended that the public is not interested in "settling" or "curing" or "removing" all these underlying circumstances from which work assignment disputes spring; the only concern is to prevent work stoppages on the issue and for this purpose it is not essential to go behind the facts of a work stoppage. While there are some practical limits to the extent that anyone can go behind the outward manifestations of a dispute, at least in a short period of time, an understanding of these various types of disputes will have significant effects upon the type of machinery established and the procedures adopted in legislative action to mitigate jurisdictional stoppages. The notion, for instance, that underlies present legislation that employers are always innocent bystanders, in at least many cases in construction, does not do justice to the complexity of the jurisdictional problem.

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Commission Should Examine Labor Laws; Construction Problems Merit Careful Study

By Archibald Cox

Professor, Harvard Law School; Former Chairman, Wage Stabilization Board

» CONGRESS should not attempt to enact labor legislation at this session, except minor, noncontroversial amendments. The Committee hearings have elicited valuable information and focused attention on the troublesome questions. The problems should now be referred to an expert commission with the time and facilities for working out recommendations in the form, not of generalities, but of specific legislation. The commission should be made up of members of the Senate and House Labor Committees and distinguished experts drawn from men of acknowledged experience in labor relations. Such a commission might also include leaders of organized labor and prominent industrialists who have participated in collective negotiations for their own companies. It should be adequately staffed by men of its own selection. Above all else it should be given time for calm deliberation and private discussion. Rome was not built in a day. The Constitutional Convention admitted no reporters and (to the best of my knowledge) no leaks appeared in gossip columns.

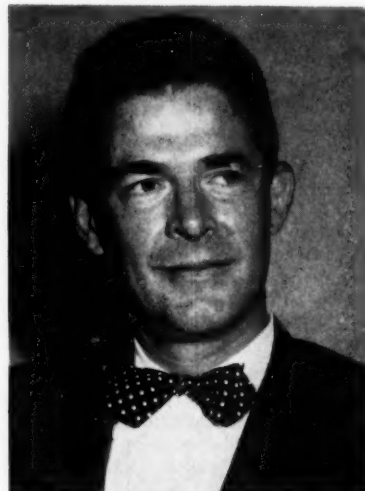
Opportunity for Congress

The present Congress has the opportunity to make a major contribution to industrial relations by enacting legislation which the public, labor, and management will accept as a stable framework for collective bargaining. This responsibility rests with the Senate and House Labor Committees in the first instance and ultimately with the Congress. I do not mean to imply that either should defer to a commission. I do suggest, however, that a commission of experts could serve three valuable functions:

1. The development of a stable statutory framework for improved industrial relations depends first of all upon building up a real consensus of opinion behind concrete proposals which, while they are neither perfect answers nor entirely satisfactory to anyone, nevertheless commend themselves to all moderates as the expression of the combined judgments of men whose expertness, impartiality, and experience in the field of labor

relations are beyond question. There is good reason to believe that, given time and effort, a broad consensus of opinion can now be reached which would include substantial bodies of moderate opinion from both management and labor. Superficially, the divergences appear sharp and numerous. The area of agreement behind the bargaining tactics is obviously larger and more important than the points of dispute. The function of the proposed commission would be to bring out and solidify this body of modern opinion.

2. Most of the current issues concerning revision of the Labor-Management Relations Act grow out of problems of technique or involve nice questions of degree. The basic principles are accepted beyond dispute. No one seriously questions, for example, the principle of guaranteeing employees protection against employer interference with the rights to organize and bargain collectively. Problems arise only when the policy of protecting these rights comes into conflict with another important policy such as freedom of expression. Similarly, there is really substantial agreement that the bulk of the strikes and related concerted activities declared unfair labor practices by section 8 (b) were fit subjects for legislative action, that it was necessary to outlaw jurisdictional strikes, strikes to compel employers to commit unfair labor practices, and many forms of secondary boycott. The present problem is to revise those provisions so as to correct misinterpretations and improve their operation. Sections 8 (b) (4) (D) and 10 (k) should be rewritten so as to support, instead of undermine, private settlement procedures. The secondary boycott provisions should be rewritten to permit certain justifiable forms of secondary activity and to clarify the line between the secondary boycotts to be outlawed and the primary strikes and picketing which are the worker's right. Public debate and committee hearings tend to exaggerate these differences because the organizations representing employers and employees are seeking the maximum advantage. Actually, many



Archibald Cox is professor at the Harvard Law School, a recognized authority and author on the subject of labor law. He has had experience with the construction industry as co-chairman of the Construction Industry Stabilization Commission. He also served as chairman of the Wage Stabilization Board until his resignation after President Truman overruled the board in the coal case. Views expressed in this article are those of the author and not necessarily those of The Associated General Contractors of America.

of the issues are so closely balanced that no one with a sense of tolerance or grain of humor can be dogmatic about the answers. On such questions the recommendations of the kind of commission I have suggested might assist the congressional committees as the consensus of expert opinion.

3. Such a Commission could furnish the congressional committee with the best, disinterested technical assistance. Unfortunately, writing labor legislation has taken on some of the complexity of tax laws. Revising the present law requires detailed study of a mass of NLRB and court decisions. The words of whatever amendments are finally adopted will be interpreted in the context of existing doctrine. One of the chief sources of difficulty under the present law has been the unexpected backlash of provisions which seemed straightforward when read apart from precedent.

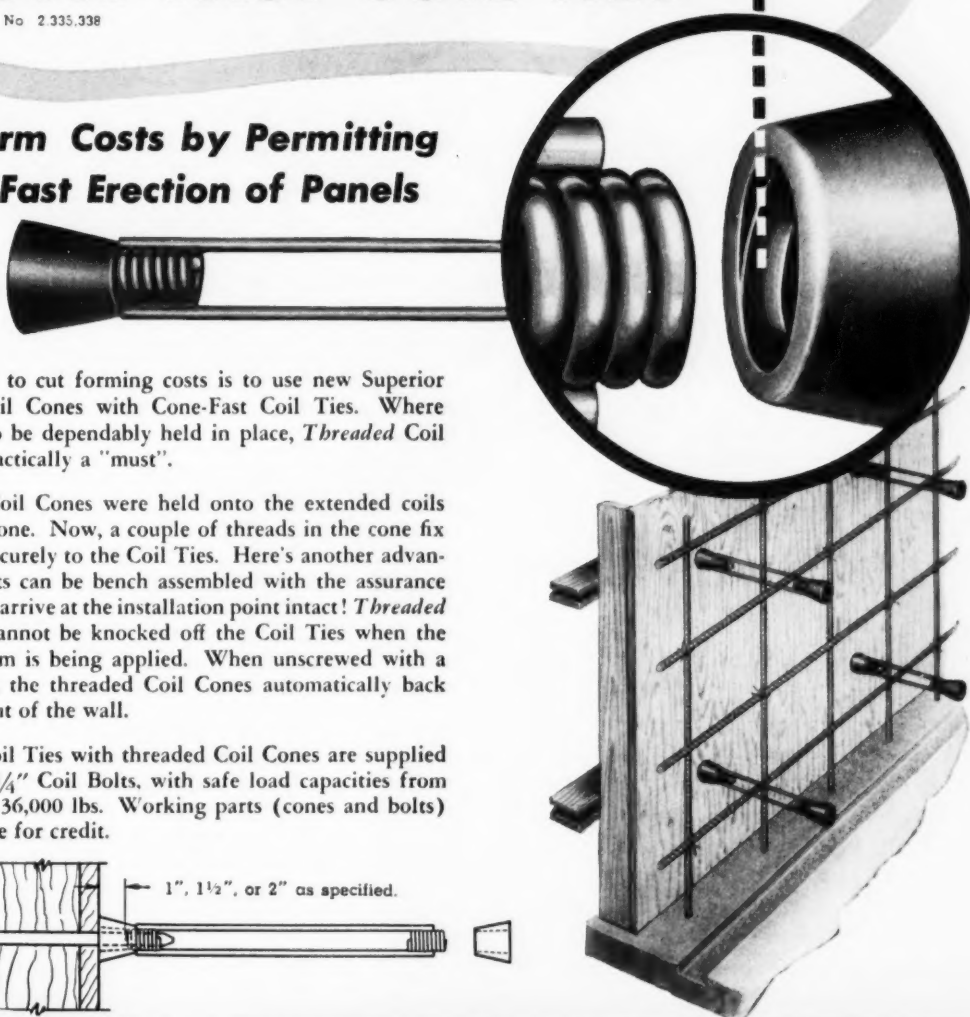
Experience has proved the value of such bodies. Some of the major contributions to the development of a national labor policy were made by distinguished commissions; for example, the report of United States Strike Commission on the Chicago

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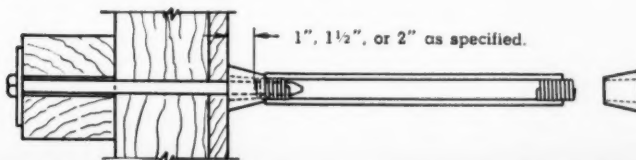
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strike of 1894, the Industrial Commission report of 1902, the Anthracite Coal Strike Commission report, and another Industrial Commission report in 1914. The procedure was abandoned in preparing the Wagner and Taft-Hartley Acts, but it has been followed with marked success in the related field of social security legislation; thus the 1950 amendments to the Social Security Act were largely the work of an advisory body of experts assisting the Senate Finance Committee. On the State level, this approach has also been markedly successful. In 1947 Governor Bradford of Massachusetts appointed a tripartite commission under the chairmanship of Sumner H. Slichter to review the State labor-relations laws. The Slichter Commission made a unanimous report and the resulting legislation has been quite generally accepted by industry, labor, and the public as a satisfactory framework for collective bargaining. In 1950 we pursued a somewhat similar method, although on an entirely informal basis in re-writing the State anti-injunction act.

Problems of Construction

The construction industry faces a number of Taft-Hartley problems which require careful study before attempting their solution. The NLRB doctrine that prohibits recognition of any union as exclusive bargaining agent until a representative number of workers are employed in the bargaining unit casts doubt upon the industry's practice of negotiating area agreements in advance of actual employment. The restrictions upon hiring through a union would cause serious disturbances if they were rigidly enforced. In an industry where employment is often short, there are obvious difficulties in observing the 30-day waiting period under union shop agreements, which the present law prescribes before a man may be required to join the union. The sections declaring jurisdictional strikes to be unfair labor practices and providing for NLRB settlement of jurisdictional disputes have stimulated the industry's efforts to establish such voluntary machinery as the National Joint Board, but before the statute will fully accomplish its purpose, it must be amended to give greater support to this private machinery and to correct NLRB doctrines which tend to undermine its operation. The secondary boycott provisions also need revision. The suggested Commission

could also take up problems which have received less public attention, such as preservation of established bargaining agencies for contractor groups.

It has been suggested that all these problems could be avoided by excepting the construction industry from the NLRA, thus leaving its labor relations exclusively subject to State

laws. Although this proposal has some advantages, it gives rise to still greater difficulties. Contractors operating in several States would be subject to as many varying laws and interpretations. International unions would face the same problems. Negotiating national agreements would become complex. The industry would lose the benefit of the provisions of the



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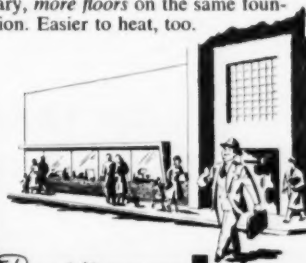
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(Continued from Page 177)

Taft-Hartley Act which are useful in their present form or which could easily be modified to increase their effectiveness; for example the restrictions upon refusals to install non-union materials and the outlawing of jurisdictional strikes. On balance it seems plain that the interest of the industry would be better served by improving the federal act than by opening the way to diverse regulation by 48 states.

Recent Labor Cases Affecting Construction

• Two Appellate Courts Crack Down on NLRB Policy on Lockouts

» FOLLOWING strong criticism late last month by two U. S. Courts of Appeals in widely separated areas, the National Labor Relations Board apparently reversed its previous policy of presuming all lockouts by employers to be illegal, by ruling on

June 30 that a construction shutdown was legal.

Background of the court cases and the NLRB's action follows:

California Court Case

On June 23, 1953, the U. S. Court of Appeals for the Ninth Circuit (San Francisco, California) reversed a ruling by the NLRB (Leonard v. NLRB, No. 13,557) which had held that it was a violation of the Taft-Hartley Act for members of an employers' association to temporarily lock out their employees pending a labor dispute brought about by a strike against one of the members of the association.

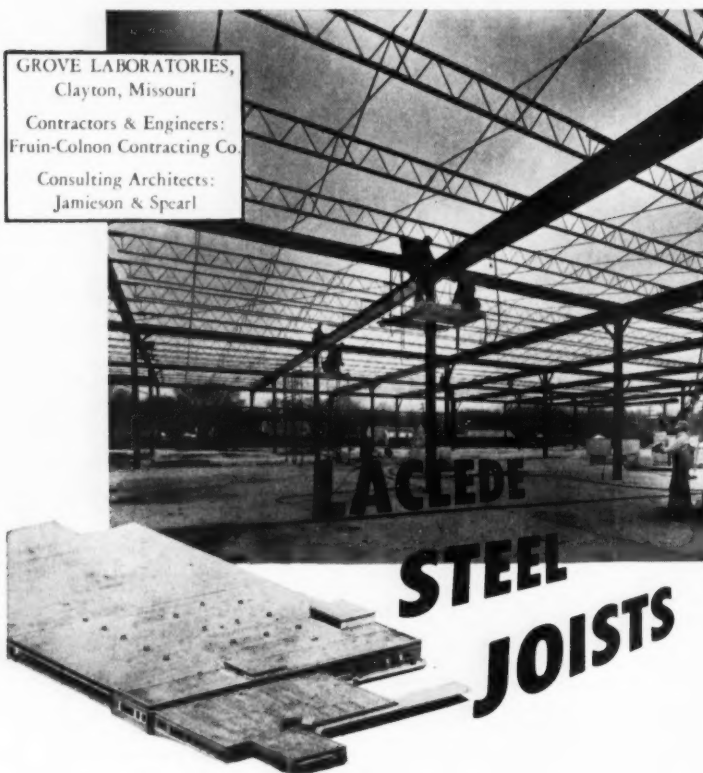
The following is a statement of facts by the court:

"The pertinent facts are that the single union of all the employees of the eleven dealers was engaged in active negotiations with all the dealers as a unit for an amendment of an existing agreement between them as to wages and conditions of employment. While the negotiations were pending, the union, by a vote of the employees of all the firms of the dealers' unit, had called a strike, which followed, of the employees of one of the members of the dealers, the Union Furniture Company. The latter company at the time the strike was called was complying with all the provisions of the then existing agreement.

"The union leader in charge of the strike called it on the particular dealer as the beginning of an announced 'whipsawing process' against one after another of the remaining ten, which well could result in strikes against all the dealers.

"The effect of such a recurrent whipsawing process is obvious. No one of the ten remaining dealers could know whether or not its store was next to have its employees sawed off in the continued whipping. Hence none could feel it safe to take orders from its customers on which they would be embarrassed by non-deliveries to them. Likewise, no dealer was safe in placing orders for furniture with the manufacturers, which well might find no employee to unload it in their stores, or if so delivered to the stores it would lie as depreciating overstocked inventories.

"To meet this powerful and effective economic coercion by all their



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employees, the ten remaining dealers temporarily locked them out though retaining them on their payrolls—but as not working and earning pay—and treating them as employees with protection as to seniority and other benefits when the dispute was settled.”

Court Criticizes NLRB

“The board in justifying its holding a temporary layoff in these circumstances violates the Taft-Hartley Act completely ignores the effect of the whipsawing process. It treated the question we referred to it as if the whipsawing factor did not exist and the only fact to be considered was the single strike at one of the stores, stating:

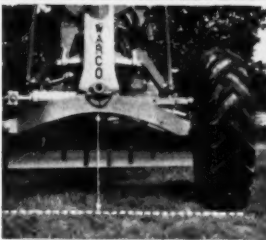
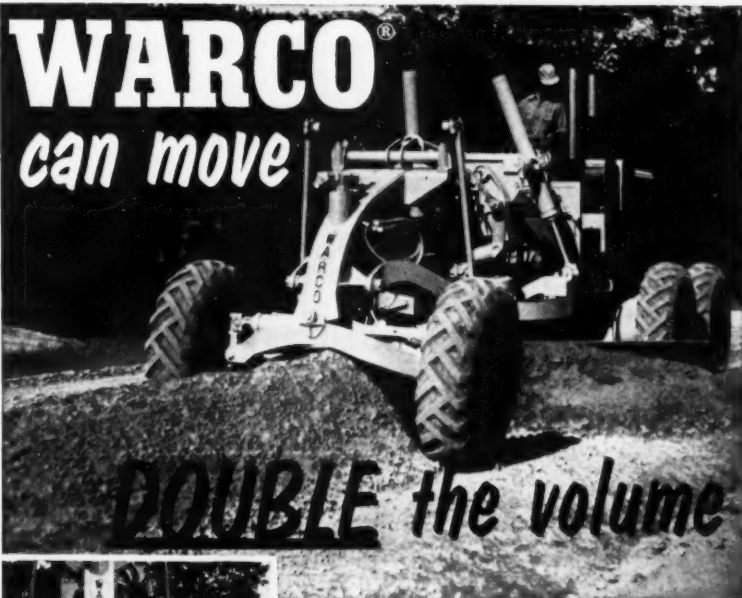
“As we read the court’s opinion, the sole question before us for consideration at this time is whether the lockout by all the dealers in this case was justifiable as a use of economic power to offset the union’s economic action in calling a strike against Union Furniture.”

“In so ignoring the above effects of the whipsawing process, involving successive strikes against employers not knowing the succession, it reverses its position taken before us in the former case on the same facts, in a manner resembling what is known to athletes as ‘the aerial whirl backflip.’ It there states the law to be that ‘An employer faced with a threatened strike against himself may lawfully lock out employees if his motive in doing so is to protect his own economic interests.’ (Emphasis supplied.)

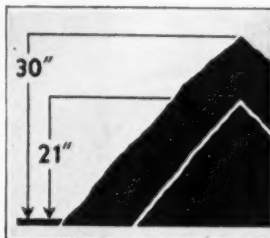
“As stated by the Fifth Circuit in *NLRB v. Dorsey, Trailers*, 179 F. 2d 589, 592, the board ‘is no ‘Pooh Bah’ to loose and bind at will.’ Congress made it an agency not as a labor board—created to aid labor in its struggle against the employer. As shown by its name, Congress created it to be a board concerned with the administration of ‘labor relations’ in which the rights of the employer are to be as jealously guarded as those of the employee. We repeat Judge Learned Hand’s gustatory comment that the board should be vigilant to see that what was sauce for the goose under the Wagner Act is now sauce for the gander under the Taft-Hartley Act. *NLRB v. Kohler*, 130 F. 2d 503, 506.”

NLRB Violated Intent

“Not only has the board avoided the question we referred to it but even more significantly has it ignored the



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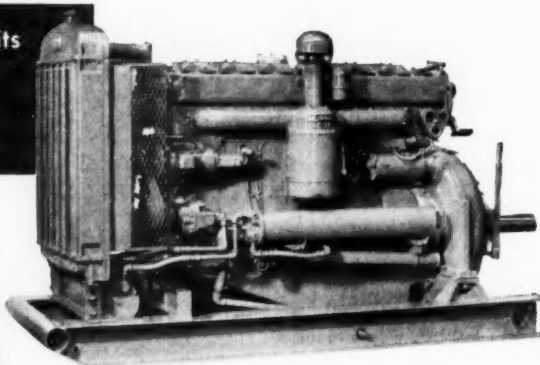
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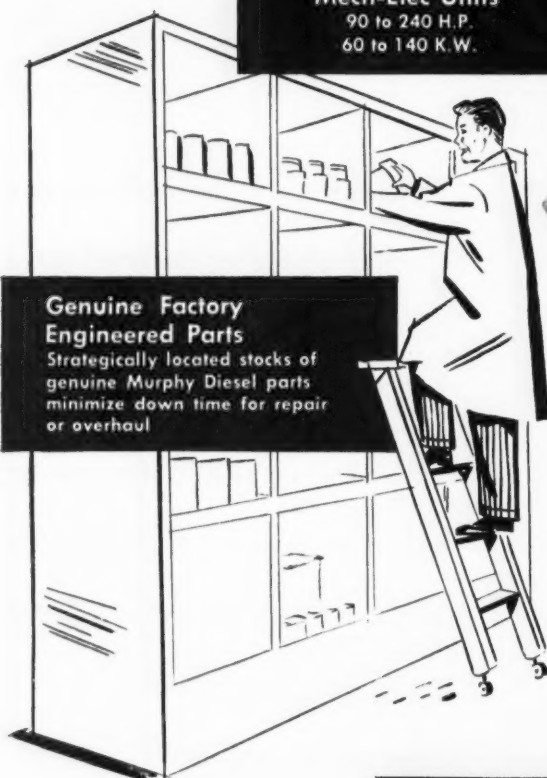
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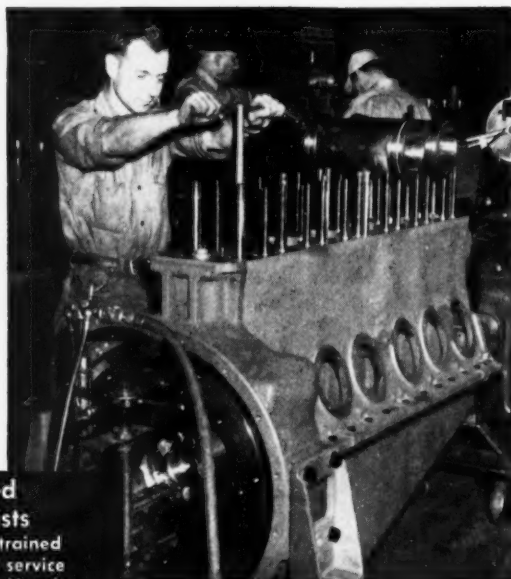


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statement of the Senate author of the bill, Senator Taft, in consideration of one of the provisions concerning lockouts, and the purpose of the legislation to create equality in the economic struggle between employer and employee. His statement is:

"Mr. President, the amendment is founded on what I consider to be the basic theory of the entire bill, that is, an attempt to create equality between the employer and the employee. If anyone can point to anything in the bill which would impose on the labor union something not imposed upon the employer, certainly I would be in favor of amending it to create equality.

"Men have come to me and said, regarding the question of an injunction for 60 days against a nation-wide strike, 'you enjoin the strike, but you do not do anything to the employers.' The opposite is the fact. Anyone who will read the section will see that there is a right to enjoin a lockout just as well as there is a right to enjoin a strike . . ." (Emphasis supplied.) (Legislative History of the Labor Management Relations Act, 1947, Vol. 2, p. 1206)

"The provision to which Senator Taft referred in his statement of creating equality between employer and employee is the proviso to Sec. 208 (a) of the act providing for an injunction by the President against a strike or lockout 'affecting an entire industry which imperil the national health and safety.' It reads:

"Sec. 208 (a) Upon receiving a report from a board of inquiry the President may direct the attorney general to petition any district court of the United States having jurisdiction of the parties to enjoin such strike or lockout or the continuing thereof, and if the court finds that such threatened or actual strike or lockout—

"(i) affects an entire industry or a substantial part thereof engaged in trade, commerce, transportation, transmission, or communication among the several states or with foreign nations, or engaged in the production of goods for commerce; and

"(ii) if permitted to occur or to continue, will imperil the national health or safety, it shall have jurisdiction to enjoin any such strike or lockout, or the continu-

ing thereof, and to make such other orders as may be appropriate." (Emphasis supplied.)"

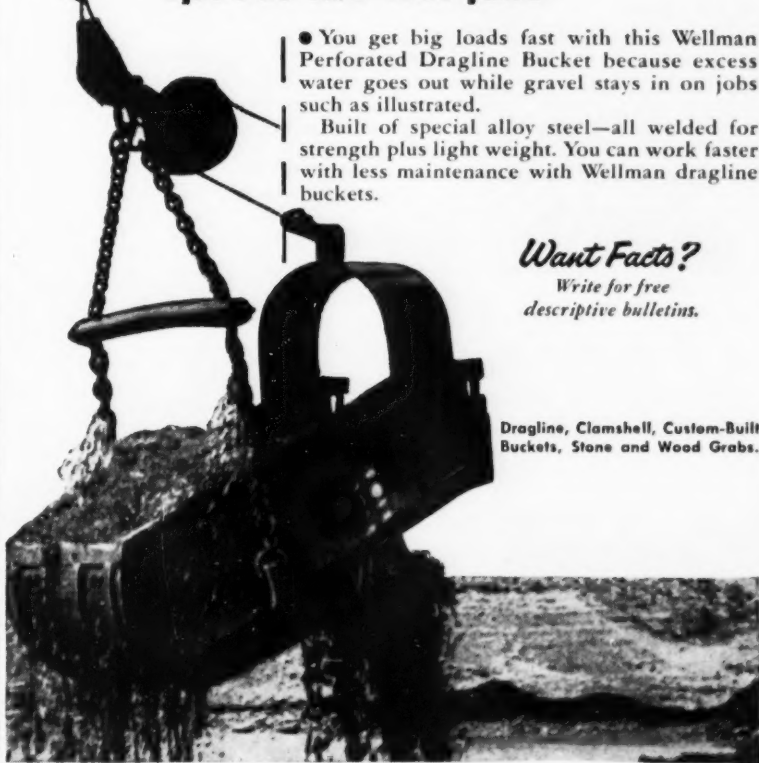
Employers' Right of Defense

"It is apparent that the power of a union to initiate a strike which calls out all the employees in an entire or substantial part of an industry is no more than equalled by the power of the employers to lock out temporarily all or a substantial part of such em-

ployees. Here, where the economic contest is between eleven dealers in the furniture industry and all its employees in a single union, the right of the employers to lock out temporarily all the employees is no more than equal to the right of the union of all the employees to call out the employees of one after another of the dealers in the whipsawing manner above described.

"We do not hold that under the Taft-Hartley Act the right to lockout

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temporarily may be used in all situations existing between employers and employees. The area of its use under that act is a matter not yet determined by the Supreme Court. However, the Second Circuit has held that an employer may not use a plant shutdown and lockout as a weapon to defeat the efforts of the employees to unionize the plant. In that case it was stated that the shutdown was not caused by market conditions, unlike the instant case where the whipsawing threatened the loss of customers and a cessation of the dealers' market. *N.L.R.B. v. Somerset Classics*, 193 F. 2d 613 (Cir. 2), cert. denied, 344 U. S. 816.

"We agree with the position taken by the board in the former case involving the same facts that the use of such a temporary lockout as here made by the dealers to meet the announced whipsawing strikes by the union does not violate either Section 8 (a) (3) or Section 8 (a) (5) of the Taft-Hartley Act.

"The petition to set aside the order of the board and deny its enforcement is granted."

Chicago Lockout Case

In the *Morand Brothers Beverage*

Company Case, the U. S. Court of Appeals, Seventh Circuit, (Chicago) (*Morand Bros. Beverage Co. v. NLRB*, 23 Labor Cases, 67,624) recently ruled that a temporary lockout of all employees in an association-wide bargaining unit, after a deadlock in bargaining and after a strike had been called against one of the employers in the association, would not be an unfair labor practice. The court held, however, that a permanent discharge of such employees under the same circumstances did amount to unlawful discrimination.

Although the Appellate Court accepted the NLRB finding that the employees in this particular case were permanently discharged, it reprimanded the NLRB for "back talk" when the case was remanded to the board for further findings previously.

To quote the court—"But the four members who had answered issue two, apparently felt constrained to voice their disapproval of our concept that, following a bargaining impasse the employer may engage in a lockout, it being his corollary of the employees' right to strike. We are told that our opinion 'has a kind of superficial appeal, an aura of fairness' which on

'more careful examination of the implications of this argument discloses its inherent defects.'"

The court says that this kind of outlook fails to take into consideration that the administrative-judicial system in this country also vests authority and power to interpret the laws of the U. S. in its courts, including the Supreme Court, as well as the NLRB. The court says "this attitude on the part of the NLRB serves no purpose other than to impinge upon the respect which deliberations of the board are customarily accorded."

NLRB Construction Ruling

On June 30 NLRB announced the dismissal of a complaint against the Central and Northern California A.G.C. Chapters and others charging construction workers were illegally discharged in a general shutdown of construction operations in connection with a plumbers strike in three California counties. The Board said it "took cognizance of the peculiar conditions which prevail in the building and construction industry, as reflected in the record, and in particular the close interdependence and necessary operational sequence of the different

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craft functions inherent in commercial construction." It added, "As we view the controversy, the struck and the non-struck respondent general contractors within the three-county area were commonly affected by the plumbers' dispute and similarly situated by reason of their uniform conviction that to accept, or to tolerate the plumbers' contract demands would involve them in violations of the law and possible penalties resulting therefrom. Failure to accede to the plumbers' demands,—and these contractors were resolved not to accept,—unquestionably meant the loss of their working plumbers. Consequently, whether or not they were struck, the general contractors could, and we find that they did, reasonably appreciate and anticipate that without the key plumber craft, construction operations could not continue for long, if at all, on an economic basis. When finally the struck projects were physically ground to a halt, the general contractors then proceeded to close down all their projects throughout the area encompassed by the plumbers' contract demands.

"It is significant that the general contractors in the affected area chose to wait over two weeks before shutting down, in the hope that the plumbers' dispute would be settled. During this period of waiting, general contractors continued operations on struck projects, as long and as best they could,—by improvising, departing from established construction procedures, and generally adopting uneconomical practices. This experience of the struck general contractor provided too for those who were not struck a graphic demonstration of the operational difficulties they would encounter without the effective work of the plumbers. In these circumstances, we fail to perceive anything objectionable in the fact that the respondent general contractors and employer associations organized themselves and acted in concert with respect to the plumbers' dispute, as was not unreasonable for the respondents to believe the contract was illegal on Wage Stabilization Board grounds, among others."

[In the matter of Central California A.G.C., the Northern California Chapter, A.G.C., and others, and the Building and Construction Trades Council of Santa Clara and San Benito, and of San Mateo Counties. (NLRB Case 20-CA 620) June 30, 1953]

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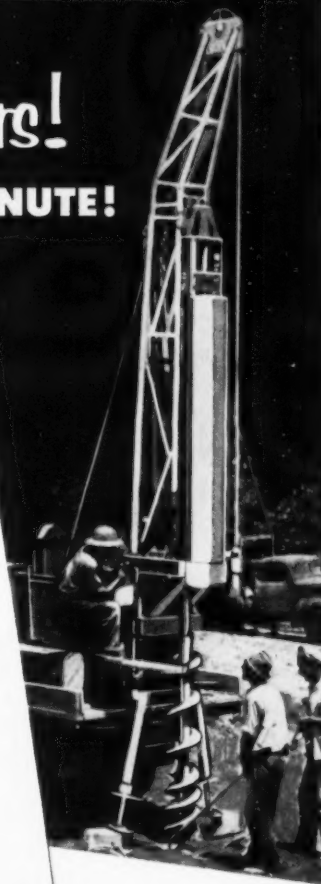
New versatile Y-1 bores STRAIGHT OR ANGLE HOLES UP TO 12 FT. DEEP!

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State of North-Carolina.

This Indenture, made

the *Eighteenth* day of *March* in the year of our Lord
One thousand seven hundred and eighty-*six* and in the *Cent*th
year of the Independence of the said State, BETWEEN

Joseph Leech Esquire of the County
of *Beaver* County of the one part & *Andrew*
Richardson House Carpenter of the other

WITNESSETH, That the said *Joseph Leech Esq* in presence
of an order of the said County Court made
this present year

doth put, place and bind unto the said

Andrew Richardson a certain *Orphan* Lad
named *John Roberts* aged ten years the *day* of
February Last

with the said *Andrew Richardson* to live after the manner
of an apprentice and servant, until the said apprentice shall attain to the age of
Twenty one years, during all which time the said apprentice shall
faithfully shall serve, he shall lawfully commands every where gladly obey,
he shall not at any time absent himself from his said Master
service without leave, but in all things, as a good and faithful servant, shall be-
have towards his said Master. And the said *Andrew Richardson*
doth covenant, promise and agree, to and with the said
Joseph Leech that he will teach and instruct,
or cause to be taught and instructed, the said *John Roberts*
to learn to read and write, and also the art and mystery of
House Carpenter of the other

And that he will constantly find and provide for the said apprentice, during
the term aforesaid, sufficient diet, washing, lodging, and apparel,
sitting for an apprentice; and also all other things necessary, both in sickness
and in health. IN WITNESS whereof, the parties to these presents have in-
terchangeably set their hands and seals, the day and year first above-written.

Scaled and Delivered
in the Presence of

John Bryan
Andrew Richardson
Joseph Leech

**Aptitude Tests Found
Effective In Selecting
Apprentices... Page 187**

**Seek Literature for
Trainees... Page 190**

This carpentry apprenticeship document, 167 years old, indicates how long and honorable the arrangement is. It also reveals how vastly improved is the lot of the apprentice, who 167 years ago was also considered a bonded servant.



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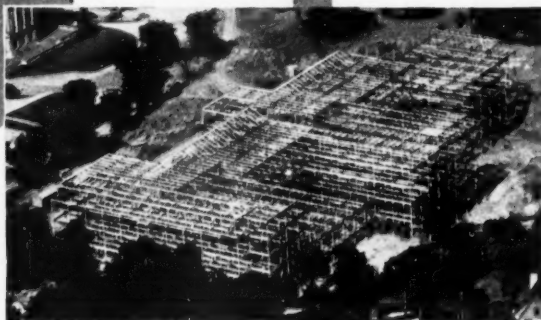


1976 EDGAR STREET

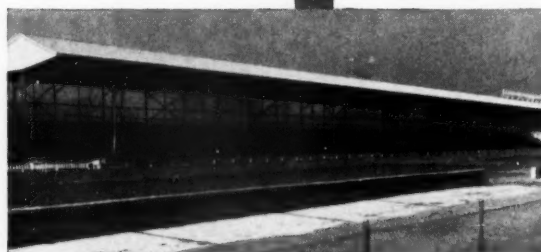
• EVANSVILLE 7, INDIANA



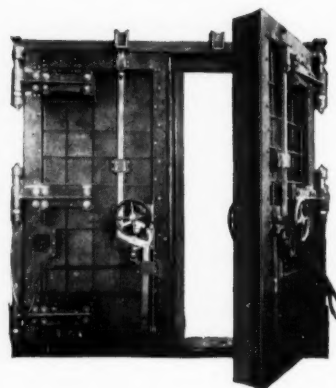
Rigid frame structure for school gymnasium



Steel structural framing for the Kentucky State Office Building



Framing to unusual specifications for Indianapolis Speedway grandstand



Heavy reinforced doors for jet engine testing

» WHAT DOES it take to make a good craftsman—a carpenter, for example?

What means can be taken to spot the best possibilities in young candidates for the trade? What steps can be taken to assure that the most competent apprentices will succeed journeymen when death, retirement or advancement comes along?

These are some of the questions which confronted the Joint Carpentry Apprenticeship Committee for Washington, D. C. and vicinity in 1951 when, in cooperation with the public employment service, it decided to try out aptitude testing as a part of the apprentice selection process.

High Rate of Dropouts

Because of the high rate of dropouts and other reasons, the Joint Carpentry Apprenticeship Committee, composed of the Carpenters District Council of Washington; the Master Builders Association, A.G.C.; Mill Operators; and other participating employers of the area, in January 1950, determined to reorganize its apprenticeship program.

Nicholas R. Loope, a World War II Navy veteran and a construction superintendent who was also a journeyman, was appointed director of the joint program. Mr. Loope and his committee faced and solved many problems, including courses of study, on-the-job supervision, and reporting. But continuing high turnover of trainees remained a problem.

New Steps Taken

Mr. Loope, convinced that new steps had to be taken to reduce the number of dropouts and remembering his own experience with aptitude tests on entering the Navy, sought the advice of Gino J. Simi, Director of Apprenticeship in the District of Columbia. Mr. Simi suggested the use of the United States Employment Service aptitude tests as one means of solving the problem of drop-outs.

As a result, a meeting was arranged, in May 1951, with Fred Z. Hetzel, Director of the United States Employment Service in the District. Out of this meeting came a program for aptitude testing of prospective carpentry apprentices along with a follow-up test research project to establish objective criteria for selection of apprentices. The main points in the program follow:

1. All applicants, referred by the

Aptitude Tests Are Effective in Selecting Washington, D.C., Carpenter Apprentices

By Jay C. Waldron

Information Specialist, Bureau of Employment Security, Labor Department

USES, the union, management, or other sources, are screened by Mr. Loope on the basis of physical qualifications, background, character, and interests. Suitable applicants are then referred to USES for job counseling and aptitude testing.

2. All applicants are tested and then sent back to Mr. Loope, including those who did not pass the tests. (Mr. Loope himself received instruction in the aptitude testing program so that he might fully understand the project.)

3. Test results are not used to determine entrance into the trade except in border-line cases in which doubt exists in areas other than aptitudes. Also the follow-up test research requires that there be a wide range of abilities employed on the job.

4. All persons who started training after May 1951 have been tested and are currently being trained in the program. All new entrants are tested as the program continues.

A year after the testing program started, 87 persons had been tested. As a result of the test information and ratings based on related school grades and on-the-job reports of foremen and contractors, a special test battery applying to the carpentry trade was developed by the employment service in its follow-up research. This battery has since been used by USES in testing new entrants in the joint carpentry apprentice program.

Measures Abilities

The test is designed to measure the various abilities which a carpenter must possess. Briefly, these abilities are:

1. *Intelligence*: the ability to "catch on" or to understand the instructions and underlying principles of the trade, and the ability to reason and make judgments.

2. *Numerical ability*: performing arithmetic operations quickly and accurately.

3. *Spatial ability*: comprehending forms in space and understanding relationships of plane and solid objects. This ability is sometimes described as

the ability to "visualize" objects of more than one dimension, or to think in terms of geometric patterns.

4. *Manual ability*: working with the hands easily and skillfully. The ability to work with the hands in placing and turning motions, and especially to use the tools which a carpenter must use in his work.

Developing Test

The process of developing the carpentry aptitude battery involved several steps. The first step was a job analysis in order to obtain complete information about the duties by skilled carpenters. Particular attention was paid to the worker "characteristics" in performing the job. The next step was the selection of measures of job success such as supervisors' ratings and school grades with which test scores could be scientifically compared. In other words, the tests themselves were tested against standards of job efficiency.

Up to April 1, 1953, a total of some 175 young men—some of them Korean veterans—were tested. Results? USES records show that of 28 "poor" apprentices, 23 or 82 percent would not have entered training if the tests had been used as the sole determinant in the initial selection of new entrants. Most of those who failed to meet the minimum tests scores either dropped out voluntarily or were discontinued in training since they were unable to meet the demands of classroom and on-the-job training.

Plans of the D. C. Joint Committee, according to Mr. Loope, call for continuing the present methods of selection of new entrants for the full cycle of four years—the program for training began three years ago in January—and to maintain master records which include the aptitude test information. Results will then be completely studied and the over-all effectiveness of the tests in the selection process evaluated.

The carpentry aptitude tests are similar to tests being used extensively in many parts of the country for the selection of apprentices in various crafts, including tool-and-die-makers, (Continued on Page 190)

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Free Literature Sought to Gain Trainees

• A.G.C. Officer Makes Suggestion to Apprenticeship Meeting

» TO INCREASE the number of apprentices in the building trades, an A.G.C. official recommended to the Ninth Eastern Seaboard Apprenticeship Conference the free distribution of descriptive literature to prospective trainees.

Welton A. Snow, secretary of the A.G.C. Apprenticeship Committee, told a construction panel of the conference at Portsmouth, N. H., late in May, that his office regularly received

inquiries from young men, vocational advisors in schools, and libraries requesting free literature on such job opportunities and requirements. However, there is no such material available to send them, he said.

Ways to Get Trainees

This situation should be called to the attention of the General Committee on Apprenticeship for the Construction Industry, an advisory group from management and labor to the Secretary of Labor, Mr. Snow added.

In suggesting other ways to secure more apprentices for the industry, he recommended increased effectiveness of local joint committees, greater participation by management and labor in training programs, and closer cooperation with the Bureau of Apprenticeship, state apprenticeship agencies and those in vocational education.

He described the field of apprentice training as the "sole responsibility of

labor and management." Other groups, such as government, may cooperate, advise and assist, but the prime responsibility of training apprentices rest with labor and management.

Mr. Snow also reviewed briefly the national apprenticeship system which he described as "sound and practical, based on labor-management participation and leadership . . . and providing the means of producing well-trained craftsmen for the construction industry."

In speaking on local joint apprenticeship committees, Mr. Snow called them vital to the system. It is through these committees that apprentices are enrolled and trained, he said.

"We can have the most perfect national and state apprenticeship systems in the world but if local joint committees fail to function we don't have any apprentices in training."

Problems Considered

He also asked the panel to consider whether or not 144 hours per year for related school instruction is an appropriate minimum for construction industry apprentices.

During the discussion that followed participants recommended 1) national committees to work with selected local programs to improve training standards, 2) financing of training by industry contributions as an investment that will pay future dividends, 3) selection of new apprentices by more "scientific methods", and 4) the training of fully rounded craftsmen in lieu of short cuts to specialized jobs.

Panel Sees Film

A film entitled "Apprentice Training" and prepared by the State Department and the Bureau of Apprenticeship, was shown at the meeting and applauded as a guide to joint apprenticeship committees and the training of apprentices.

Fred L. Daly, secretary of the Bridgeport (Conn.) area electricians' joint apprenticeship committee, reported that the quality of training is reflected by the sincerity and efforts of a joint committee's work.

Over 200 attended the general meeting opening the sessions of the conference. John Symonds, conference chairman, welcomed the delegates on behalf of the New Hampshire State Apprenticeship Council, and expressed hope that the proceedings would be of value to all.

(Continued from Page 187)

plumbers and pipefitters, bricklayers, sheet-metal workers, machinists, printers, and others.

According to the Bureau of Employment Security, U. S. Department of Labor, results of aptitude testing in many cities in other apprenticeable occupations have demonstrated the effectiveness of test selection of beginning workers.



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Each day's pour, averaging 500 cubic yards, was completed by 12:30 P.M. With practically no bleeding and quicker hardening of the Early Strength concrete, the finishers were off to an early start and were through by 4 P.M.

The work progressed steadily through the winter. Unproductive overhead and overtime costs were negligible. The whole project is 6 months ahead of schedule.

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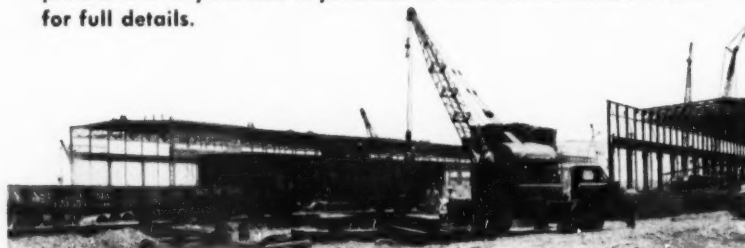
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APPRENTICE TRAINING

Fisher Addresses Graduates

Fred Fisher, a member and former chairman of the A.G.C. Apprenticeship Committee, told 92 graduating apprentices in Houston recently that the construction industry offers them opportunity and security.

To them he said: "You can go as far in this business as you have it in your heart and mind to go. And the best security you boys have is the knowledge in your heads and the skill in your hands."

Mr. Fisher, of the Fisher Construction Co., known as "Mr. Apprentice" in Houston, gave the graduates sound advice from a man who worked his way up from a bricklayer apprentice to be president of one of Houston's most successful contracting firms.

He urged the new journeymen to give an "honest day's work for an honest day's pay," and decried the war-time trend of seeing "how little one can give and how much one can get."

Joint action by both management and labor must solve the apprentice training problem if the nation's largest industry is to be supplied with enough skilled craftsmen, he told the young tradesmen.

Florida Agency Reorganized

The state agency for apprentice training in Florida has been reorganized and made part of the industrial commission.

On July 1 the newly-created department of apprenticeship replaced the old Florida apprenticeship council which was top heavy with labor members.

Under the new law the department will be headed by a director appointed by the commission, which will also map out his general duties. There will also be established a ten-man state apprenticeship council, policy-making body, headed by James Vocelle, commission chairman.

Eight of the members, with one vote each, will represent equally management and labor from the four major industries in the state: building and construction, metal trades and shipyards, printing and the aircraft industry. The tenth member, without a vote, is the state supervisor of trade and industrial education. Mr. Vocelle will vote only in case of a tie.

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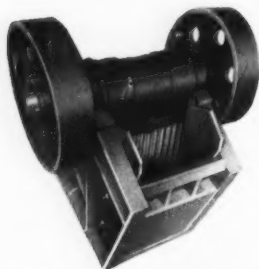
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FREE ENTERPRISE—THE CORNERSTONE OF AMERICAN PROSPERITY
THE CONSTRUCTOR, JULY 1953

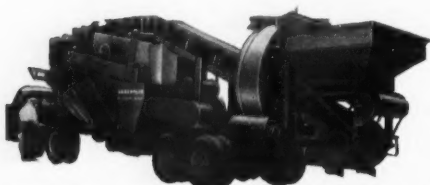
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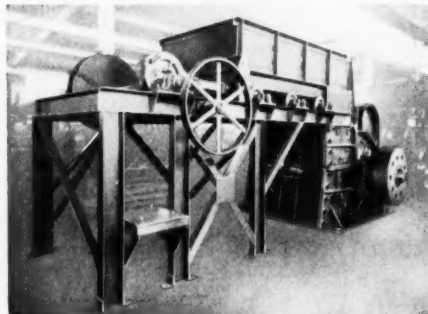
A FEW OF THE INDIVIDUAL UNITS SHOWN HEREWITH THAT ARE GETTING THE JOB DONE



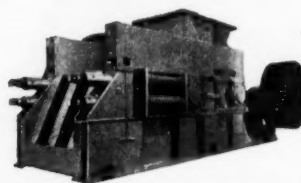
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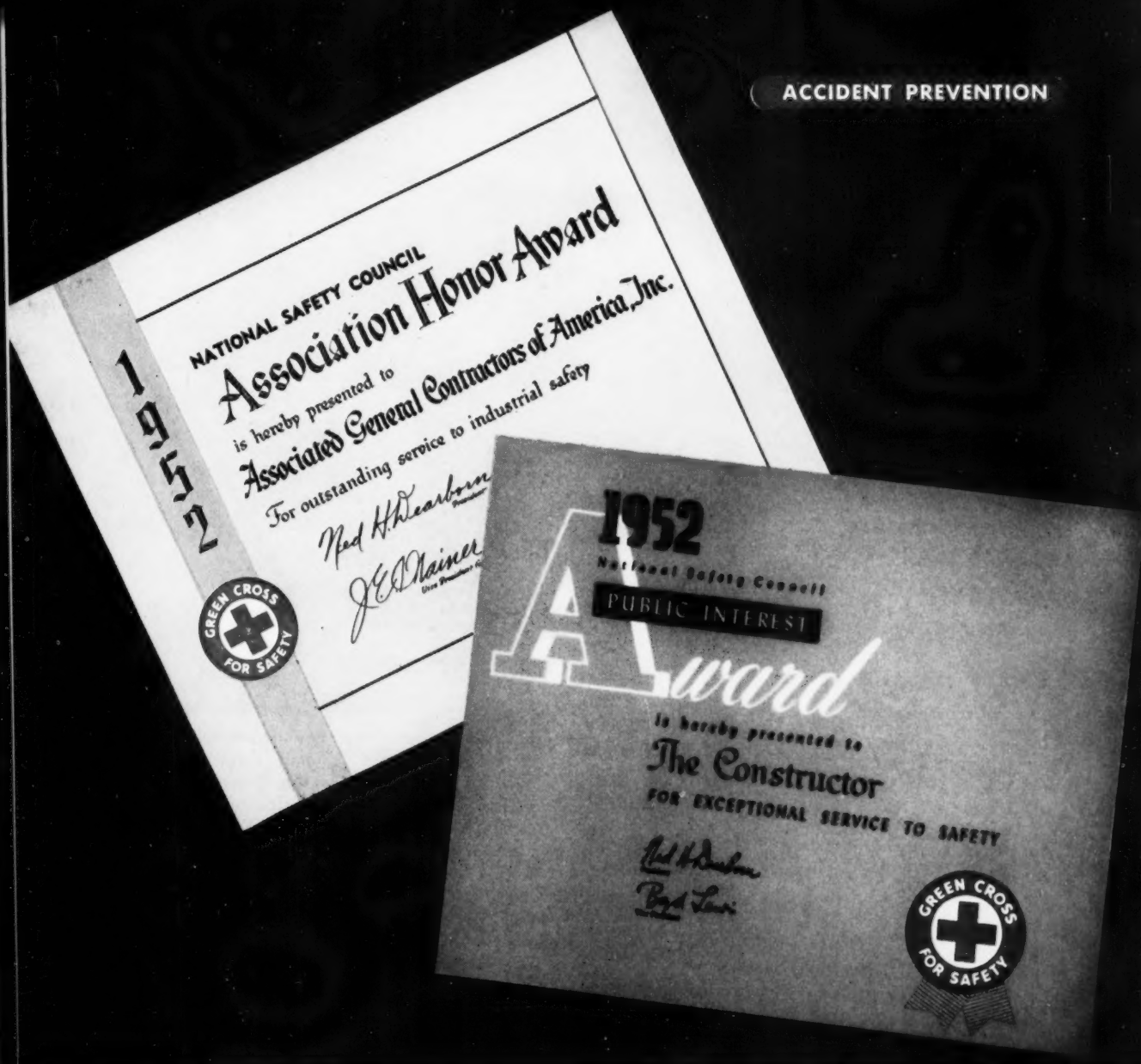
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- **Safety First At Ohio Atomic Plant...Page 197**
- **Missouri Group Awards
Safety Flags.....Page 198**
- **How Insurance Companies
Can Help General Contractors.....Page 200**



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Below—Safety chiefs at the huge plant check point where high voltage lines cross road. Notice safe clearance sign at bottom of picture and safety cable with warning flag to crane operators at top of picture.



Instructor Robert Garner giving safety lecture to new employees.

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» SAFETY of construction workers at the sprawling Pike County atomic project is a "must."

From the moment an employee enters the 4,000 acre project on the Scioto River in Ohio, he knows the importance of his safety by hundreds of safety signs and posters proclaiming danger on the one hand or suggesting ways to work more safely on the other.

Before a new employee actually starts to work he must attend organized orientation sessions, most of which deal with safety procedures. Such sessions include movies on the

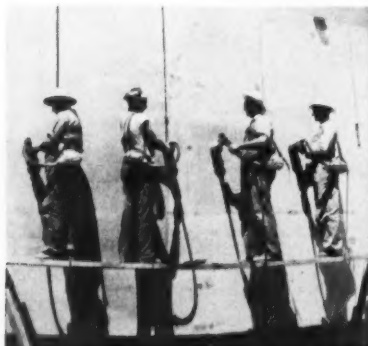
subject and lectures on job safety and safe driving on crowded roadways on and off the site. Motor vehicle accidents are a major cause of disabling injuries to workmen and damage to government and contractors' property.

Portable first aid stations, staffed by trained personnel, dot the area and a doctor is on duty throughout the working day. Another will be added later when employment reaches peak employment of about 30,000. Also, a fully staffed hospital with doctors and nurses will be built soon. Meanwhile, four ambulances stand by on the project to rush seriously injured to hos-



One of the four ambulances ready to rush injured to hospitals.

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ACCIDENT PREVENTION

pitals in nearby Chillicothe or Portsmouth.

Part of this zeal for safety is generated by the Atomic Energy Commission, which sets minimum requirements for all contractors as a condition of their contracts prior to taking on the job, and part by the prime general contractor, Peter Kiewit Sons' Co., whose safety slogan is "Think! Safety Pays You."

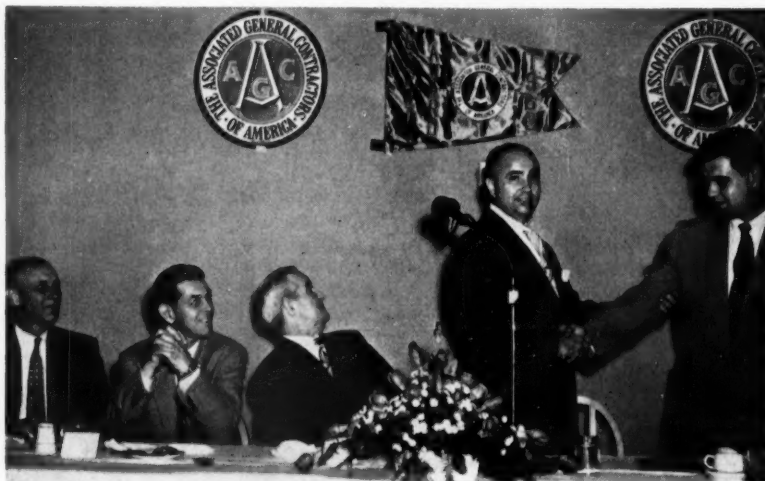
The AEC constantly checks on the contractors to see if the safety programs are being maintained according to standards published by the Oak Ridge Operations Office. The Kiewit company, an A.G.C. contractor, maintains a staff of 12 men to check on its own operations and those of the sub-contractors. The staff has made a career of studying accident causes and finding their remedies.

Because of the large number of workers employed at the site, the Industrial Commission of Ohio has set up a local office there and is processing "on the spot" all compensation claims which arise.

Last year the AEC and its construction contractors established an enviable safety record. They registered only 2.58 injuries per million man-hours, compared with 19.34 injuries per million man-hours in all the construction industry as reported by the National Safety Council for 1951. Through March of this year the rate of accidents in the Pike County project was 1.05 for the same number of man-hours which indicates that officials in charge of the plant's construction are trying to make this job the safest in the history of the industry.

Missouri Group Awards First Safety Flags

• Firms With No Lost-Time Accidents To Fly Pennants at Jobs



» THE A.G.C. of Missouri, carrying its accident prevention campaign one step farther, has adopted a safety flag which members with no lost-time accidents in the previous year can fly over their jobs during the following season.

At a meeting of the board of directors in March it was decided to give special recognition to members with outstanding safety records, and the flying of the chapter's "no accident" flag was authorized. The chapter felt that such an award would instill pride and a certain will to work to win the flag so that it can be flown

President R. M. Hoover, second from right, congratulates Bruce Greaves for designing safety flag on wall between A.G.C. emblems. Looking on, left to right, are E. J. Bawn, contractor; H. W. Masters, chapter vice president; and Governor Phil M. Donnelly.

the following year. Members who have won the flag can not fly it during subsequent years unless they have had perfect records during the previous year.

The design of the flag was decided by a contest conducted among college engineering students in the state and a prize of \$100 was awarded to the

student who produced the best prototype. On May 1 the chapter chose from 15 entries a flag designed by Bruce Greaves, a civil engineering student at the Rolla School of Mines.

Mr. Greaves was honored at the chapter's dinner meeting June 1, at which time his flag was displayed and the eleven members who won 1952 safety awards for no lost-time accidents received their certificates.

Special guest at the dinner was Governor Phil M. Donnelly who presented the awards to each winner and congratulated them on their outstanding safety records. Another guest was Harry Kirk, director of research and safety for the national A.G.C., who presented the chapter with a third-place award for cooperation in the national safety program last year. The Army's Corps of Engineers was represented by officers from the Omaha, St. Louis and Kansas City districts.

Safety Award Winners

Heading the list of firms with the most man-hours without lost-time accidents was the Quinn Construction Co., Kansas City, which had 152,000 man-hours; and Gesco, Inc., Louisiana, Mo., with 141,000 man-hours.

Other firms receiving the awards were as follows: Bilhorn, Bower & Peters, Inc., Clayton; Brunn Construction Co., Kansas City; Joseph J. Griesemer, R. S. Houge, and Henry L. Perkinson Construction Co., all of St. Louis; Runquist Co., Savannah, Mo.; St. Joseph Fuel Oil & Manufacturing Co., St. Joseph; Storms & Frew Construction Co., Kansas City; and the Reno Construction Co., Overland Park.

The dinner, with President Robert M. Hoover, Kansas City, as master of ceremonies, was attended by 179 persons from Missouri and surrounding states. It was the first public demonstration of the chapter's current accident prevention campaign that began in 1951 when Ray Gast of the Gast & Ray Construction Co., Louisiana, Mo., was president.

Last year, when Frank E. Rolfe, Harrison Engineering and Construction Corporation, was president and Mr. Hoover was chairman of the accident prevention committee the campaign was stepped up. To date, results of this organized attack on accidents are encouraging to chapter officials and members who hope ultimately to have every firm engaged in safety and their colors flying high.

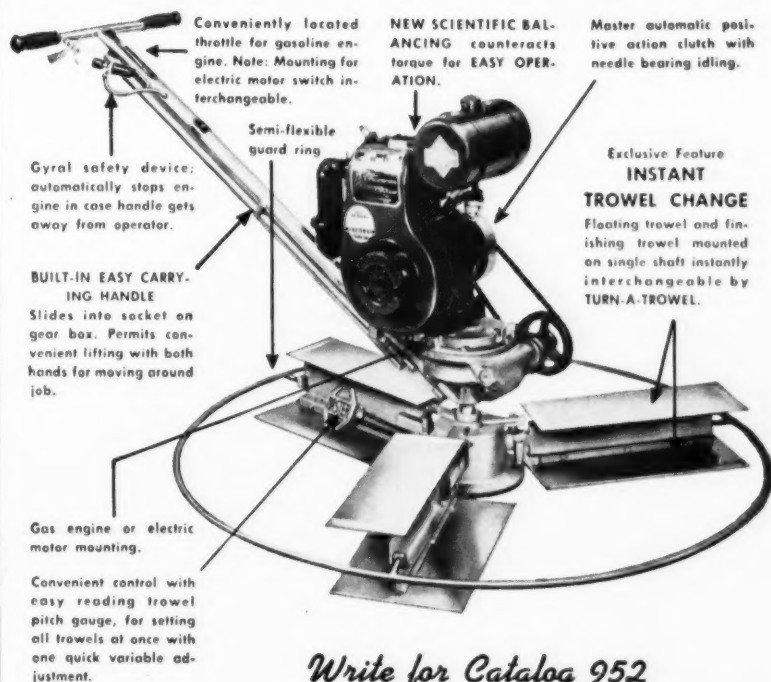
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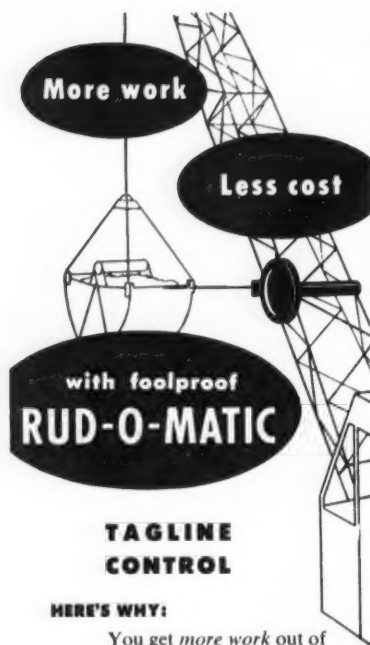
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ACCIDENT PREVENTION

How The Insurance Companies Can Help General Contractors

By S. F. Staples

Vice President, Employers Mutuals of Wausau

(EDITOR'S NOTE: This article is based on Mr. Staples' address to the joint meeting of the A.G.C. Accident Prevention Committee and representatives of the Associations of Casualty Insurers at the A.G.C. convention in Miami last March.)

» MANY ASPECTS of insurance costs are beyond the control of both the contractor and the insurance carrier. However, there are some areas in which the cost of insurance is controllable.

Below are some of the causes of the present high cost of insurance:

- The public lately has become increasingly claim conscious. That is, more people have become aware of the possibility of collecting on an insurance claim. The number of untried cases in any court will show this.
- High jury verdicts seem to be the established trend across the land. Some recent examples include two back injury cases—one settled for \$225,000 and the other for \$110,000; amputation claims have cost from \$96,000 to \$300,000; paralysis claims often amount to \$300,000 and the loss of a hand or arm costs anywhere from \$90,000 to \$150,000.
- Certainly another cause of higher insurance costs is the liberal interpretation placed on compensation benefits by industrial commissions in several states plus the increased cost of administering the workmen's compensation law.

One of the original goals of the law was to provide a tribunal where the employer and employee could settle compensation disputes promptly, cheaply and summarily. But in many cases, because of cumbersome administrative procedure disputes are lengthy and expensive.

What, then, is the answer to the question of how compensation administration can be improved? I personally have yet to hear anyone adversely criticize compensation administration in the State of Wisconsin. With the multiplicity of bills presented by various pressure groups affecting these laws, no legislature and no legislative committee is qualified to

phrase the necessary amendments to approach an ideal compensation law. I should like to tell you how, after recognizing this difficulty, Wisconsin has attempted to solve this knotty problem.

Some 30 years ago, under the direction of the industrial commission, a compensation advisory committee, entirely unofficial, was formed. Prior to sessions of the legislature, this committee, which is composed of representatives of industry, labor and insurance carriers, has anywhere up to half a dozen or more sessions at which time proposals from the various groups are discussed. When an agreement is reached, it is reduced to understandable phraseology and all agreed matters are combined in one bill which is then, at the request of the Industrial Commission, usually introduced by the Senate Judiciary Committee.

Compensation Runs High

Compensation payments can run into real money. Here are a few examples:

- A 51-year-old pulpwood worker was unloading pulp bale from a box car when one of the bales, weighing about 450 pounds, fell on him. The worker sustained severe fractures of his vertebrae with injury to the spinal cord and was paralyzed from the waist down. Over \$16,000 has been paid for medical expenses alone on this case since December of 1951, and the estimated future cost of compensation and medical expense based on the claimant's life expectancy is \$90,000.
- In another case, an employee was struck by a falling tree, sustaining back injuries which resulted in paralysis. The estimated cost in this case, including compensation and medical expense, is approximately \$60,000.
- A woman employed by a manufacturing concern was critically injured when an electrically-operated window washer's hoist fell from the 6th floor of a building and struck her. This woman, 22, at the time of the accident in May of 1944, is still in the hospital and has received approximately \$8,500 compensation and medical expenses of \$50,000. Presently the average

monthly medical bill is \$750. The total cost of this case is estimated now at \$160,000.

Accident prevention activities have done much in recent years toward reducing the frequency of accidents but it has become apparent that among the accidents still occurring the severity is greater than ever before. One of the major reasons for this, of course, is the fact that the construction industry is becoming increasingly mechanized. Street and road construction jobs, tunnels, bridges, irrigation channels and public building projects of all kinds are now highly mechanized, presenting many new mechanical hazards. Further, this machinery is far more dangerous than similar machinery located in a factory or plant. Machinery in a plant is not only permanent and used under the same conditions year in and year out, but it is also equipped with permanent controls to lessen physical hazards and accidents caused primarily by the human element. On construction jobs, on the other hand, 95 per cent of the mechanical equipment is either mobile or transferable from one location to another.

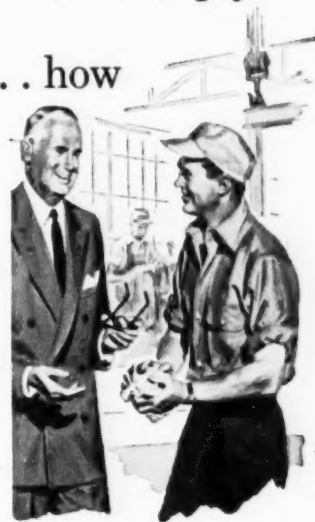
Contractual Liability

Consider current insurance coverages themselves for a few moments. They are not necessarily new insurance coverages but are lines which have come to the fore in recent years and which are highly important to the contractor.

First, look at contractual liability. By this, we refer to liability assumed by contract and not imposed by law. This question presents a very serious problem, in the opinion of many, because some specifications provide that the contractor assume more responsibility for negligence than is imposed on him by law. Some contracts provide that the contractor hold the architect and principal free from harm for any liability which might arise out of many circumstances, even including patent infringements.

Contractual liability is an individual proposition following no set pattern and requiring a close and careful examination of the specifications. The type and kind of liability imposed by way of contract is of such a nature that it often warrants individual rating by the insurance company. Since insurance rates are based on past performance projected forward to cover future happenings, one can see that with the variations existing in con-

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contractual liability the making of rates is very difficult.

The high ratio of probable loss to the small charge collected tends to produce a very unsatisfactory loss ratio and this is a contributing factor to increased base rates. The efforts of The Associated General Contractors of America to restrain imposing this contractual liability upon contractors would be a valuable contribution to the contracting fraternity. We have heard discussed, in terms that sounded sensible and reasonable, the idea that legislation might well be considered to prevent the principal from passing on any contractual liability to the contractor other than his liability for negligence. The insurance carrier can be of great help to the contractor in this matter of contractual liability and the contractor should consult his carrier on these matters as often as necessary.

Another coverage to consider is fire legal liability which the general public is becoming aware of more.

• Not long ago, a contractor was erecting a garage building valued at \$200,000. When it was almost completed, the building burned. The con-

tractor's liability policy did not protect him because the building was in his care, custody and control. In this instance, he should have had builder's risk fire insurance or a stipulation in his contract that the owner would provide adequate fire insurance and include him as an insured. Unfortunately, the contractor had made neither of these provisions and paid the loss himself.

• Loss from fire can also expose a contractor to tremendous liability in instances where he is engaged in making additions and alterations. In one case an insured had a contract for a \$50,000 addition to an existing structure. This new work was covered by fire insurance. The other part of the building was valued at \$300,000 and due to the negligence of the contractor, there was a fire resulting in a total loss. The insured happened to have liability limits of only \$100,000 resulting in an uninsured loss of \$200,000.

• One other case that might be cited involved an insured with a contract to renovate some army barracks. Each of the 260 barracks to be renovated was valued at \$40,000. Due to the contractor's negligence, one barracks caught fire and was totally destroyed. It was only the sheerest luck that all 260 buildings did not go up in smoke. Had this happened, the loss would have amounted to \$10,400,000.

One other coverage to be considered is completed operations insurance. This is the coverage that takes over where public liability leaves off.

Operations Insurance

Take this case where completed operations insurance would certainly have come in handy: the contractor was held liable for injuries arising out of an automobile accident which occurred sometime after he had completed a road job. It was claimed that the contractor had left an excess of oil or tar on the road and this caused a driver to lose control of his automobile. Needless to say, the contractor paid heavily.

An important angle to consider is this matter of adequate property damage limits. Property damage on specific jobs is becoming increasingly hard to place as far as excess insurance is concerned. If a contractor regularly carries adequate property damage limits—say, \$100,000 across the board—there is a very good possibility that the overall cost would not exceed the cost for carrying only

\$5,000, \$10,000 or \$25,000 limits regularly and going out to purchase \$100,000 limits on a certain job requiring that amount. It is a good idea for a contractor to carry high limits as a general rule not only on his public liability coverages but also on his property damage coverage and on any other coverage under which there is a large potential of loss.

Keep Agent Informed

In order to do the best possible job of service to the contractor, the insurance man should be appraised of all pertinent facts about the business and should certainly be consulted whenever anything comes up involving the insurance program. Knowledge of projected activities and changing operations are essential to him. In that way—and only that way—will he be able to serve contractors with top efficiency—and only by doing this will the client receive the maximum benefit from his premium payments.

Also to be considered are accident prevention and job training activities, as well as the overall insurance picture of his own operations. The first of these is the hidden or indirect costs of accidents. The conclusion reached in a study by the Labor Department, National Safety Council and insurance officials states that there exists a 4 to 1 ratio between the indirect and the direct costs of accidents. In other words, a contractor having a direct ac-

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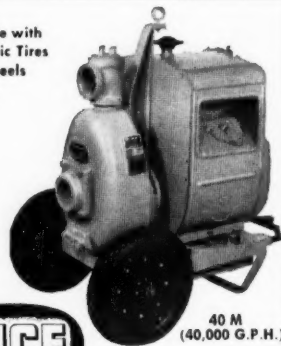
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cident cost of \$30,000 has, by dint of the 4 to 1 ratio, an indirect loss cost of \$120,000. The 4 to 1 ratio is, of course, not constant—it may prove to be a little more or a little less.

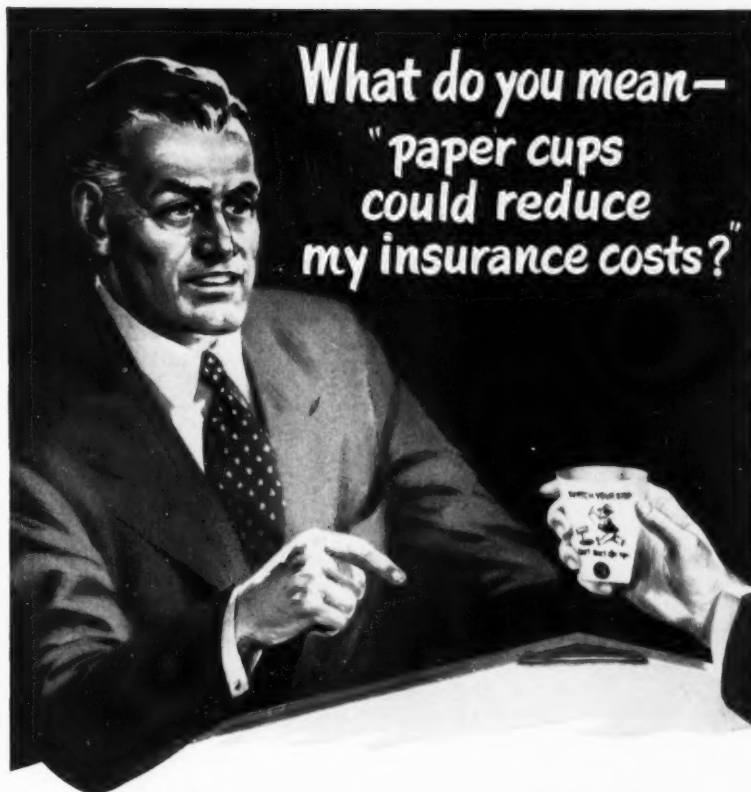
Experience Rating

Another area of controllable loss costs is in experience rating. Here is the place where real savings can be made. No dividend plan, no fancy rating deal, no system of credits developed by an insurance company can produce the savings that can be realized through experience credits. Approximately 60 per cent of the insurance dollar is set aside for expected losses. If through efficient accident prevention activities the actual losses do not equal the sum of the expected losses a credit rating results. If, on the other hand, the actual losses exceed the expected losses, a debit rating results. Thus, as the insurance industry has contended for years, the greatest and surest area of insurance cost reduction is in the area of accident prevention.

Base rates for the construction industry are based on the experience of all construction operations. As might be expected, this average rate is often too high for a good risk and too low for a poor risk. The effect of experience rating is to even this out. Some contractors have a high of 74 per cent credits and some have a low of 132 per cent debits. You can see that if compensation insurance costs represent, as they are said to, 7 to 10 per cent of the labor charge the difference between a 74 per cent credit and a 132 per cent debit will have a considerable effect on the cost of compensation insurance to you and, incidentally, on any bid you might make on a specific job.

Nation-Wide Rating

Experience rating is presently of even greater importance than ever before because of the recent development of interstate rating. Interstate rating merely means that in the calculation of an experience credit or debit the experience, nation-wide, is used. This is an important development for a large construction concern since the rate the construction company can make for itself is an important consideration under your system of competitive bidding. A decent earned insurance rate can, and often does, mean the difference between a profit and a loss on a construction job.



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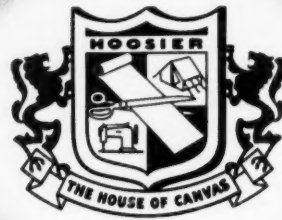


"Citizens in peace, Prepared for war"—the basic purpose of the Army Affiliated Program is displayed by the 820th Engineer Aviation Battalion, one of five affiliated reserve units sponsored by the Northern California Chapter of The Associated General Contractors of America. The California contractor's group has more units than any other chapter.

- **A.G.C. Army Affiliation Program Nears Completion Of Sixth Year.....Page 207**
- **Col. M. C. Miller Given Legion Of Merit For Exceptional Korean Service...Page 208**

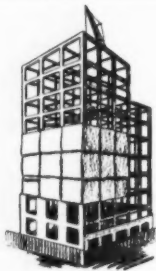
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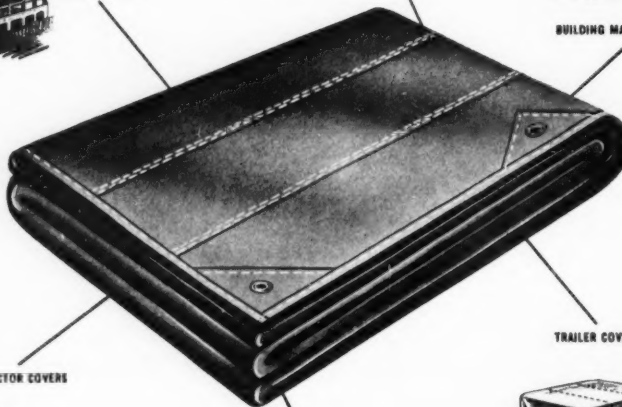
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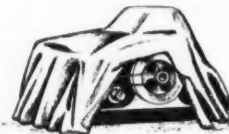
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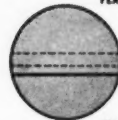


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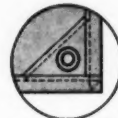


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» THE Associated General Contractors of America is continuing its efforts to assure this country well organized military reserve construction units which can speedily be called to the support of the nation's regular armed forces in an all-out emergency.

Realizing that the United States is likely to be the first target in the event of war, and that there will be no "cushion of time" such as there was in the first and second world wars, the A.G.C. is working toward the vital element in any struggle for survival—efficient and fast mobilization.

To meet that goal, the association began in 1947 to cooperate with the U. S. Army Corps of Engineers in the recruitment and training of technicians from the construction industry. Around the country, 60 A.G.C. chapters and branches helped to organize such units, in which contractors, engineers, architects and craftsmen trained together as reserve officers and enlisted men.

Merits Become Apparent

The merits of the program became speedily apparent when the Korean battles began. The need for army engineers was partially met by A.G.C. units, hastily called into active duty. Praise for their activities filtered back from many sources to the chapters which had sponsored them. Word was received in 1951 that two units, the 439th Engineer Construction Battalion, sponsored by the Kansas Contractors Association, and the 453rd Engineer Construction Battalion, sponsored by the Spokane Chapter of the A.G.C., had distinguished themselves in Korea. The 439th Engineer Construction Battalion was cited by former Secretary of the Army Frank Pace for spectacular restoration of a bridge south of Wonju.

At the A.G.C. national convention in 1952, General Lewis A. Pick, chief of engineers of the Corps, told the assembly of contractors, "Your two construction battalions in Korea have made history and . . . other units are prepared to continue in this fine tradition whenever and wherever called upon.

"These affiliated troops were chosen because of their experience and their ability to cope with major construction problems encountered. They have rendered a valuable service in imparting construction techniques to untrained individuals which has helped us greatly in the rapid training and effective readying of units for opera-

A.G.C. Army Affiliation Program Nears Completion of Sixth Year

- 60 Chapters and Branches Sponsoring 74 Units
- Outfits Praised for Their Feats in Korea

tional use. . . . Both you and your units have done your part well."

Of the 74 A.G.C. units currently organized, 21 are on active duty, of which 11 are on foreign duty in the Pacific and European theatres. Among the units sponsored are Engineer Construction Groups, Engineer Construction Battalions, Engineer Aviation Groups, Engineer Aviation Battalions, Engineer Aviation Brigades, Engineer Dump Truck Companies, Engineer Maintenance and Supply Groups and Engineer Heavy Equipment Companies.

Welton A. Snow, manager of the national A.G.C. Building Division and a lieutenant colonel in the Organized Reserve Corps, is in charge of the association's over-all affiliation activities and of liaison with the U. S. Army Corps of Engineers. He reports that the A.G.C. is the only association within the construction industry which

is helping to form such units.

"The 74 construction units sponsored by A.G.C. chapters comprise a large percentage of the total reserve construction units required by the Corps of Engineers and have been characterized as the backbone of the Engineer Affiliation Program," said Mr. Snow.

Reliance Upon Citizens

"America traditionally has relied on the 'citizen in arms' to augment its small regular military forces," he declared. "This is where the Organized Reserve Corps comes in with its mission to furnish combat and service type units organized, trained and prepared in time of peace for rapid mobilization and expansion in the event of an emergency. The A.G.C. is proud to be associated with the Defense Department's Affiliation Program."

Mr. Snow emphasized the impor-



A floating Bailey Bridge is erected by men of the 961st Engineer Construction Battalion, sponsored by the Milwaukee Chapter, A.G.C., during a training period at Fort Leonard Wood, Mo., which also included the construction of fixed-type bridges and cantonnments and instruction in firing small arms, demolition, detecting mines and booby traps, building military roads and using tools and equipment the Army way.

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tance of such units in view of the greatly increased logistical demands of combat forces in the atomic age.

The affiliation program was launched in May, 1947, at a Pentagon conference to which a representative group of the nation's top industrial, labor and educational organizations were invited by Secretary of War Patterson. Among those explaining the program was General of the Army

Dwight D. Eisenhower, then Chief of Staff. Subsequent conferences between the Corps of Engineers and the A.G.C., resulted in an invitation to the association to sponsor reserve construction units. This invitation was formally accepted Sept. 30, 1947, and the first unit was activated the following month.

Col. M. C. Miller Awarded Legion of Merit



Lt. Col. M. Clare Miller pictured in Korea during the early days of the fighting.

» LT. COL. M. Clare Miller, vice chairman of the A.G.C. Highway Contractors' Division and president of the Kansas Contractors Association, A.G.C., has been awarded the Legion of Merit for distinguished service as commanding officer of the A.G.C.-sponsored 439th Engineer Construction Battalion which performed outstanding feats in Korea. (Reviewed in *The Constructor* for July 1951 and July 1952.)

Award Is Highest Honor

Citation with the award, which is the highest non-combatant honor and third highest made to members of the armed forces, states:

"Lt. Col. Miller . . . distinguished himself by exceptionally meritorious service as Commanding Officer, 439th Engineer Construction Battalion, 32nd Engineer Construction Group, in Korea, from 29th March 1951 to 14 April 1952.

"Despite shortages of equipment, inclement weather, hazardous work-

ing conditions and loss of experienced personnel through rotation, Colonel Miller, by careful planning and rare technical ability, skillfully organized, trained and directed the command in rebuilding and constructing vital rail and highway supply routes in support of X Corps.

"Demonstrating extraordinary professional skill, he supervised the launching of the world's longest continuous steel girders for the Yongwol highway bridge, construction of the largest two-way, heavy duty, timber and steel pile-bent bridge across the Som River and the rebuilding of the strategic road net in east central Korea.

"His exemplary performance of duty and inspirational leadership instilled in his troops the confidence and pride in their work which contributed materially to the superior engineer support rendered all combat units, greatly increasing logistical support through improved supply routes.

"Colonel Miller's outstanding accomplishments furthered the United Nations' campaign for peace and reflect great credit on himself and the military service."

Col. Miller, who returned last year from Korea, is managing partner of the San Ore Construction Co., McPherson, Kan., and has been active in both the Kansas Contractors Association and the national A.G.C.

Born in McPherson in 1907, he attended school there, attended college and took a correspondence course in civil engineering. His first contact with construction was as a time-keeper in 1921. He became connected with the firm in 1930, serving as engineer until 1937, when he became managing partner. The company specializes in highway and municipal work, and has built airport projects and the Oklahoma Ordnance Works at Chateau.

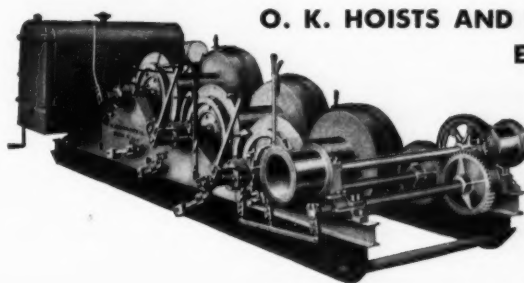
The 439th Battalion, sponsored by the Kansas Contractors Association under the A.G.C. Army Affiliation Program, performed many outstanding feats in Korea. Its first was the reconstruction of a railway bridge at Kira Chon in April 1951 without proper technicians, materials or equipment. The unit built extensions on crane booms, improvised substitutes for working platforms, and launched what was then the world's longest continuous girders by improvised rollers, tractors, "and a great deal of plain Yankee ingenuity," in the words of former Army Secretary Frank Pace.

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STANDARD FORMS

COVERING IMPORTANT CONTRACTING PROCEDURE



Prepared by The Associated General Contractors of America and Cooperating Bodies

| Order No. | MANUALS | Per Copy | Per Dozen | Per 100 |
|----------------------------------|--|----------|-----------|----------|
| 1. | A.G.C. Manual (Contains documents listed below: Nos. 3-38, inclusive, and Nos. 34, 35, 36, 36a, 37, 38). | \$5.00 | \$50.00 | |
| 2. | Accident Prevention Manual (Revised and enlarged 1952) | 3.00 | 30.00 | \$210.00 |
| CONTRACTS | | | | |
| 3. | Standard Contract for Engineering Construction issued by the Joint Conference on Standard Construction Contracts | .25 | 2.75 | 20.00 |
| 4. | Standard Building Contract of the American Institute of Architects—Revised 6th Edition | .50 | | 47.50 |
| 5. | Subcontract form—American Institute of Architects—Revised 6th Edition | .10 | | 9.50 |
| 6. | Standard Form of Acceptance of Subcontractor's Proposal | .10 | | 9.50 |
| 7. | Standard Government Contract | .01 | | |
| 8. | A.G.C. Cost Plus a Fee Contract | .10 | .50 | 2.50 |
| 9. | A.I.A. Cost Plus a Fee Agreement between Contractor and Owner—Revised 6th Edition | .10 | | |
| 11. | Equipment Rental Agreement | .10 | .50 | 3.00 |
| 12. | A.G.C. Proposal Form | .10 | .50 | 3.00 |
| ESTIMATING AND ACCOUNTING | | | | |
| 13. | A.I.A. Accounting Form #701 "Change Order" | .20 | 1.80 | 12.00 |
| 14. | A.I.A. Accounting Form #702 "Request for Partial Payment" | .20 | 1.80 | 12.00 |
| 15. | A.I.A. Accounting Form #703 "Certificate for Payment" | .20 | 1.80 | 12.00 |
| 16. | Building Estimate Summary | .10 | .50 | 3.00 |
| 17. | Job Overhead Summary | .10 | .50 | 3.00 |
| 20. | Contractors' Equipment Ownership Expense (Itemized tables of ownership expense elements with instructions for application. Revised 1949) | 1.00 | 10.00 | 65.00 |
| 21. | Equipment Record—Bond paper | .10 | .50 | 3.00 |
| 22. | Equipment Record—Cardboard | .10 | .50 | 3.50 |
| INVESTIGATION OF BIDDERS | | | | |
| 24. | Standard Pre-Qualification Questionnaires and Financial Statements for Prospective Bidders—Complete in Cover. Engineering Construction (For Qualifying Before Bidding) | .20 | 1.80 | 12.00 |
| 25. | Standard Pre-Qualification Questionnaires | | | |

| Order No. | INVESTIGATION OF BIDDERS (Continued) | Per Copy | Per Dozen | Per 100 |
|----------------------|--|----------|-----------|--|
| | and Financial Statements for Prospective Bidders—Complete in Cover. Building Construction (For Qualifying Before Bidding) | .20 | \$1.80 | \$12.00 |
| 26. | Standard Questionnaires and Financial Statement for Bidders—Complete in Cover. Engineering Construction (For Qualifying After Bidding) | .20 | 1.80 | 12.00 |
| 27. | Standard Questionnaires and Financial Statement for Bidders—Complete in Cover. Building Construction (For Qualifying After Bidding) | .20 | 1.80 | 12.00 |
| 28. | Financial Statement and Questionnaire for Credit Transactions | .20 | 1.80 | 12.00 |
| MISCELLANEOUS | | | | |
| 29. | Insurance Check List | .10 | 1.00 | 5.00 |
| 30. | The Functions of a General Contractor | .10 | .75 | 4.00 |
| 34. | A.G.C. Governing Provisions | .10 | .50 | 3.00 |
| 35. | A.G.C. Code of Ethical Conduct | .10 | .50 | 3.00 |
| 36. | Concrete Mixer Standards | | | Single copies—no charge; quantity prices on application. |
| 36a. | Contractors' Pump Standards | | | |
| 37. | A.I.A. Standard Form of Arbitration Procedure | | | |
| 38. | Suggested Guide to Bidding Procedure | | | |

FOR A.G.C. MEMBERS ONLY



A.G.C. EMBLEM

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SIGNS AND SEALS

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|--|--|-----|
| 39. | A.G.C. Cardboard Seal (red and black) 24" dia. | .50 |
| 40. | A.G.C. Metal Seal (red and black) 10" dia. | .40 |
| 41. | A.G.C. Decalcomania Seal (red and black) a. 10" dia. | .20 |
| | b. 5" dia. | .10 |
| Metal Seals and Decals: 20% discount for orders of more than 50; 40% discount for orders of 200 or more. | | |

43. A.G.C. SOCIAL SECURITY FORMS

Form SS1: Application for Employment; Form SS2: Employees' History Record; Form SS3: Employees' Employment and Earnings; Form SS4: Payroll. List of prices and styles will be furnished to A.G.C. members on request.

USE THE CONVENIENT COUPON TO PLACE YOUR ORDER

| | | | | | |
|-----------|--------|------|----------|-----------|--|
| Order No. | Amount | Cost | 11. | 25. | 38. |
| 1. | | | 12. | 26. | 39. |
| 2. | | | 13. | 27. | 40. |
| 3. | | | 14. | 28. | 41a. |
| 4. | | | 15. | 29. | 41b. |
| 5. | | | 16. | 30. | 43. Price List and Samples <input type="checkbox"/> |
| 6. | | | 17. | 34. | Price List and Styles of Emblem <input type="checkbox"/> |
| 7. | | | 20. | 35. | |
| 8. | | | 21. | 36. | |
| 9. | | | 22. | 36a. | TOTAL COST |
| | | | 24. | 37. | |

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Gentlemen: Enclosed find check for \$..... for which please send materials as ordered by number herewith.

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City.....Zone.....State.....

July 1953

» A.G.C. PRESIDENT C. P. Street was paid the highest honors by his friends and associates at a dinner given by the Carolinas Branch May 22 in Charlotte.

Most of the 400 guests at the formal dinner were fellow contractors from the two Carolinas, but others included engineers, bankers, architects, material suppliers, civic leaders, merchants and national A.G.C. officers. John MacLeod, vice president of the national A.G.C., from Paramount, California, was present to honor Mr. Street, as was C. S. Embrey, assistant executive director of the association, from Washington, D. C.

Mr. Street, who has been active in A.G.C. affairs for many years, was vice president of the association last year. He is a former chairman and vice chairman of the Association's Building Contractors' Division and was chairman for many years of the Public Relations Committee.

Guests Introduced

V. B. Higgins, heavy contractor from Greensboro, N. C., was toastmaster and program chairman. The dinner, he said, was an excellent opportunity for the Carolinas construction industry to show its affection toward a member of its own group who has been elected to the highest office within the A.G.C.

Mr. Higgins then introduced W. H. Rogers of Raleigh, state highway engineer; M. R. Cowper of Kinston, N. C., president of the Carolinas Branch; James H. Glenn, of the Charlotte Chamber of Commerce; P. M. Bealer, also with the Chamber of Commerce; Forrest T. Shuford of Raleigh, North Carolina commissioner of labor, and their wives.

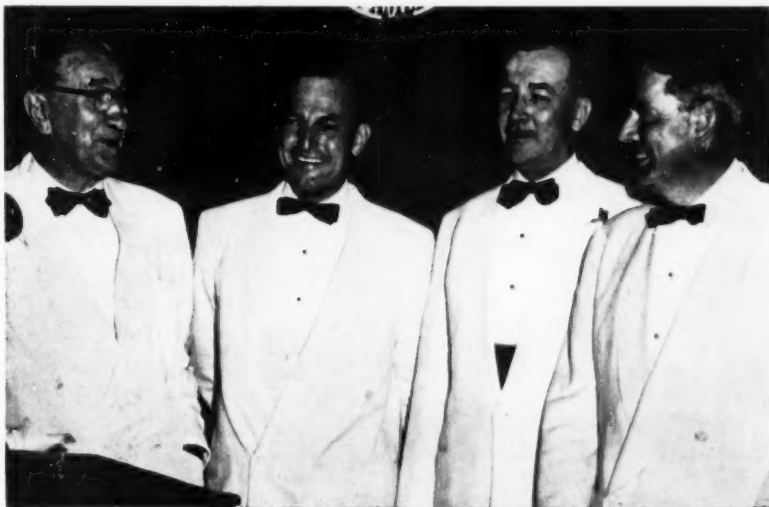
Mr. MacLeod, in a short address, spoke of the excellent qualifications of Mr. Street for the office of A.G.C. president. He called Mr. Street a "great individual and one of our greatest contractors."

F. L. Shackelford, of Greenville, South Carolina, introduced Mr. Street at the dinner. Mr. Shackelford, past president of the Carolinas Branch and national director of the A.G.C., said, "I am happy to honor a good friend. For 20 years I have watched him grow along with the Carolina construction industry. He was born in Kentucky but he realized when he finished school the opportunities to be found in the Carolinas and he came to Charlotte.

"He has constructed some of the outstanding buildings in the South—in-

President C. P. Street Honored At Carolinas Branch Dinner

• 400 Contractors and Associates Praise A.G.C. Head



President Street, right, talks with A.G.C. officers after dinner: Vice President John MacLeod; Marion R. Cowper, Carolinas Branch president; and Robert Patten, managing director of the chapter and chairman of the Secretaries' and Managers' Council, shown from left to right.

cluding schools, municipal buildings, industrial plants and military installations. He has served his industry in many important ways, both in the Carolinas Branch, of which he is a past president, and in the national organization.

"He has been a member of practically every important committee in the A.G.C. He was elected vice chairman of the Building Division in 1948, chairman of it in 1949 and then vice president and president of the association. He likes to call himself a country boy, but I say he is a country boy who has really gone to town."

Branch Deserves Honor

In responding to the many things said about him, Mr. Street described the honor that goes with his office as really belonging to the Carolinas Branch in recognition of its strong leadership in the industry. He spoke of the advantages of an association such as the A.G.C., especially at a time when there is a highly centralized government in Washington. The association, he said, gives the contractors a chance to work together not in collusion but for the common good.

Mr. Street cited accident prevention, apprentice training, labor relations, legislation and harmonious relations with subcontractors as areas within the construction industry where contractors can work together.

"The construction industry has prospered in recent years and I hope all of us will work together to make our industry continue to grow in stature," he added.

Cincinnati A. G. C. Officers

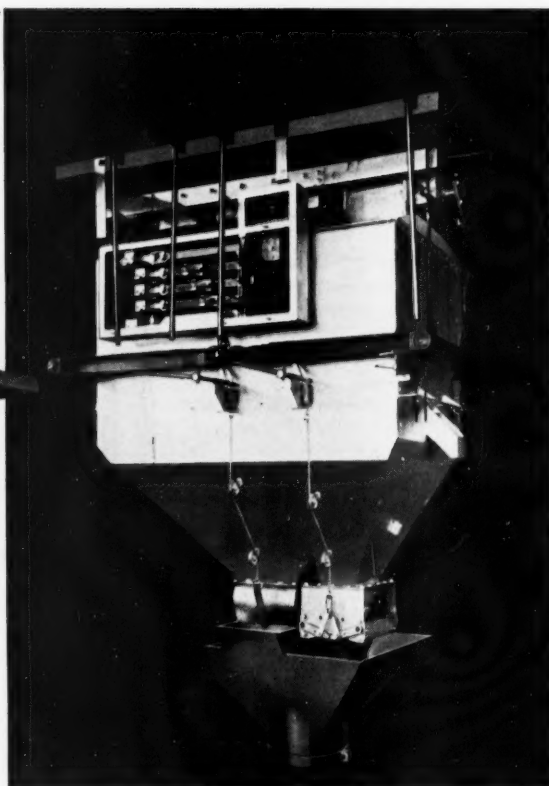
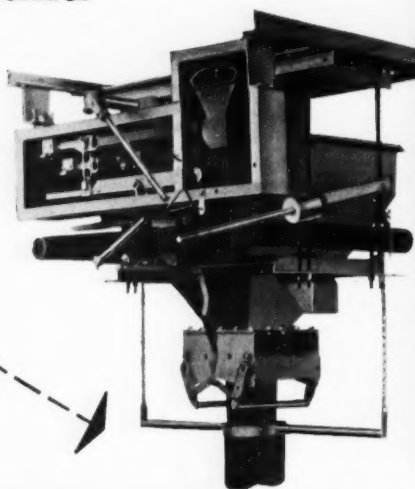
Officers for the 1953-54 season were elected by the Cincinnati Chapter of the A.G.C. at its annual meeting May 19.

Charles M. Messer, of Frank Messer & Sons, Inc., is the new president, succeeding Louis Richter of the Richter Transfer Co. Harry D. Foley, of the Foley Construction Co., was named vice president.

Other officers include Edward L. Brose, Sr., Brose Construction Co., secretary and A. T. Scully, Scully Brothers, treasurer.

Building Division officers include Sydney J. Warm, The J. & E. Warm

head,
heart and
hand
is the



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Head? Yes, because whether it's for a Roadbuilders' Plant or an immense Central Mixing operation, a BUTLER Batcher is a fast-acting robot that virtually thinks for itself. The fully automatic, pushbutton units do *all* the thinking, faster and more accurately than a man.

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BUTLER Weighing Batchers are readily installed on any plant — regardless of make. So if your batching equipment is getting on the old and jaded side, give your plant a new and active head, heart and hand — a BUTLER Weighing Batcher — and watch your production soar.

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So, whether you need a completely automatic, vastly complex, mistake-proof, push-button Batcher to weigh out as many as 8 materials . . . or a combination Batcher for cement and aggregate . . . or a Batcher for 3 aggregates . . . or fast-stepping, high production Batchers for your Roadbuilders' set-up — it's profitable and wise to insist on the BUTLER nameplate.

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CHAPTERS • BRANCHES

Co., chairman; Theodore M. Penker, Jr., The Penker Construction Co., secretary; and Daniel M. Coppin, Fisher-DeVore Construction Co., treasurer.

Heavy Construction Division officials are H. N. Bollman, The Crumley, Jones & Crumley Co., chairman; John R. Jurgensen, highway-heavy contractor, secretary; and Joseph R. Sweeney, Sr., O'Connell & Sweeney, Inc., treasurer.

Highway Division officers are W. L. Harper, W. L. Harper Co., chairman; S. A. Ruebel, S. A. Ruebel & Co., secretary; and Mr. Sweeney.

Texas Chapters Convention

Texas chapters of The Associated General Contractors of America voted recently to hold an annual state-wide convention beginning next year.

At the May 24-25 meeting of the Texas Chapters Executive Council in Beaumont delegates agreed to hold the convention in place of one of the quarterly council meetings. Date and place of the convention has not been announced.

Council members approved a resolution to "work out mutually satisfactory mechanics" for cooperation with the Texas Society of Architects.

The next quarterly meeting of the executive officers council will be held in Amarillo, August 23-24.

Tex. Group Elects Directors

The Texas Highway Branch, A.G.C., elected a new slate of directors by mail ballot in April prior to electing new officers for 1953-54 at the June 15 meeting in Austin.

The results of the balloting were reviewed and approved by a special committee including Pete Gilvin, Art Seldon and F. M. Reeves.

New directors include E. W. Colglazier, R. E. Hable, Harry Newton and W. L. Trotti. Directors re-elected for another term include Herman Brown, J. M. Dellinger, F. W. Heldefels, Jr., and D. R. Ward. Chapter President R. W. McKinney automatically remains on the board of directors for another year.

South Texas Chapter of the A.G.C. plans to stage its third annual South Texas Home Show and Construction Exposition in Corpus Christi, Oct. 3-11, Chapter President C. C. Hinchberger announced recently.

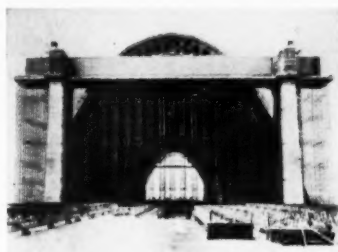
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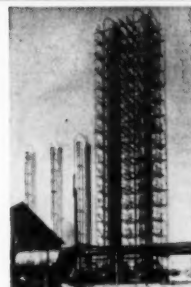
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Towers of Webbed Steel Reaching for the Sky

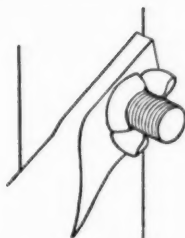


92 miles of tubular high carbon steel go into 50 towers built of Safway scaffolding. Each Safway tower supports 20 tons at the U.S. Navy hangar on the East Coast.



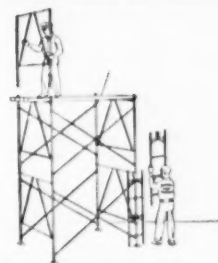
Straddling base equipment, Safway scaffolding reaches high at this Dallas, Texas oil refinery. Safe, strong Safway equipment is a favorite in fabulous Texas oil country.

When Time Is Money



Notice how Safway design gains its strength. Trouble-free wing nuts solidly hold carbon steel tubular cross braces to end frames; cross braces pivot on hardened steel, Hi-Shear rivets that really last.

Safety Builds Profits



Light weight Safway end frames are easily handled by one man. You need only a few basic interchangeable members to assemble scaffolds of any shape or height. Two men can easily erect 30 feet of scaffolding in 30 minutes.



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Pennsylvania Organizes A. G. C. State Group

• New Council Will Work to Strengthen Position in Industry

The Pennsylvania State Council of General Contractors, an intrastate organization of A.G.C. chapters, was formally organized recently at Hershey. Made up of heavy, highway and building chapters, the council represents some 300 contractors operating within the state.

Similar to Other Groups

Organization and purpose of this council is similar to other statewide groups of A.G.C. chapters in Texas, Louisiana, Tennessee and Florida. Stated in the formation agreements is the desire to "eliminate unfair or discriminatory methods and practices and . . . to encourage and promote open . . . competition for the benefit of the public."

Formerly the Pennsylvania State Council of Building Contractors, the group was reorganized to include high-

way and heavy contractors.

A.G.C. chapters making up the council include the Pennsylvania Builders Chapter in Harrisburg; the Master Builders Association of Allegheny County, Inc., in Pittsburgh; the Philadelphia Chapter; and the Constructors Association of Western Pennsylvania.

Through this council leading general contractors of the state hope to meet and exchange ideas, promote harmonious industry and labor relations and establish standardized contracts for the protection of owners, general contractors, subcontractors and their suppliers.

Board of Governors

Board of governors is made up of five delegates and alternates from the four chapters. The secretary or manager of each chapter is also a member of the council but has no vote.

Officers for 1953 were elected as follows at the Hershey meeting: William Hughes, Philadelphia building contractor, chairman; Ray Noonan, Harrisburg, first vice chairman; Max Harrison, Pittsburgh, second vice chairman; O. H. Martin, heavy contractor from Pittsburgh, third vice chairman; and H. B. Alexander, Harrisburg building contractor, treasurer. Mr. Alexander is chairman of the A.G.C. Accident Prevention Committee.

Executive Director Named

W. M. Guthrie has been named executive director of the council which has offices at 222 North Third Street, Harrisburg.

The council will function chiefly through committees appointed by the chairman. Committees already set up include the Highway and Heavy Committee, Building Advisory Committee, Joint Committee with Engineers and Architects, Public Relations Committee, Labor Committee, Safety Committee and the Insurance Committee.

Council bylaws call for the Board of Governors to meet in April and October. The April meeting will be the annual meeting at which time election of officers will take place.

Chapters Change Managers

Wesley A. Bastedo resigned as manager of the A.G.C. of North Dakota in May and returned to the Minnesota chapter's office as assistant manager to Robert J. Hendershott. C. L. Hoffman succeeded Mr. Bastedo as manager of the Bismarck office.

Mr. Bastedo, a member of the Minnesota A.G.C. staff for two years, left in 1951 to establish the North Dakota chapter. Prior to this, he served as mason training representative of the Minnesota A.G.C.

Mr. Hoffman, executive secretary of the Insurance Federation, will now manage both groups. Directors of both the A.G.C. chapter and the Insurance Federation recently approved a single plan of management for the associations.

"Construction News", official publication of the chapter, said in its April issue: "In many respects the two organizations have the same interests and seek similar goals. Details of the plan (to merge the managements) have been worked out by subcommittees of the two groups and will be reviewed periodically and revised as necessary."

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In the first place, a Link-Belt Speeder incorporates all operating advantages you need to speed digging cycles . . . plus safety and accuracy . . . maximum maneuverability and mobility. In addition, specific operating features that are vital for certain jobs—such as Independent Swing and Travel—are available as optional equipment.

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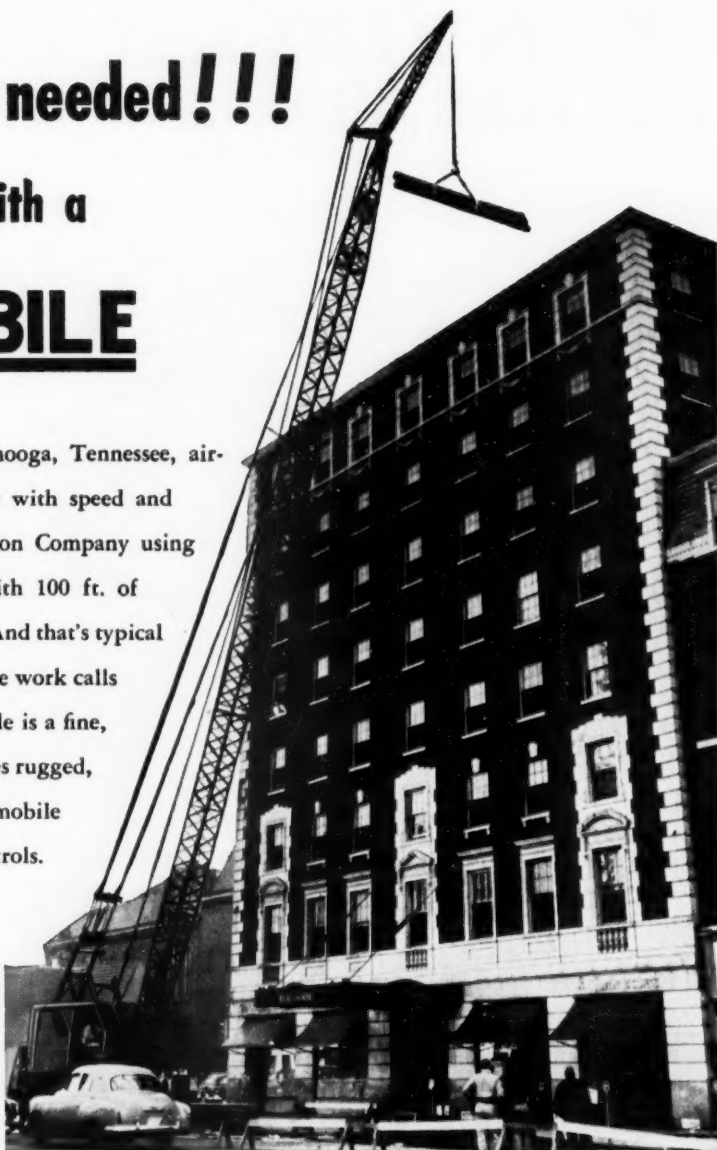
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High atop the Read House in Chattanooga, Tennessee, air-conditioning equipment is set in place with speed and precision by the Industrial Steel Erection Company using a BAY CITY CraneMobile equipped with 100 ft. of boom and a 15 ft. jib to handle the job. And that's typical of CraneMobile performance whether the work calls for high lifts or heavy lifts. CraneMobile is a fine, powerful, efficient machine that combines rugged, heavy duty construction with flexible, mobile service and accurate boom and load controls. Both crane and carrier are built as a unit to give a nicely balanced crane with a low center of gravity. CraneMobile is available in capacities up to 25 tons with carriers to suit your job requirements.



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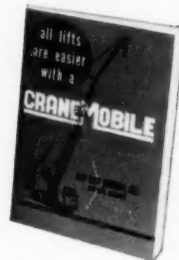
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- Collapsible high gantry makes it possible to raise maximum recommended boom lengths from the horizontal without assistance.
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- Power load lowering device which can be quickly engaged or disengaged, will lower heavy loads smoothly and accurately.

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BAY CITY



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Bulk Material Handler—Getman Brothers, South Haven, Mich. "Scoot-Crete" Model N-52 has 3,000-lb capacity. It is diesel-powered. Caster steering permits it to turn within its own 90" length. It is 43" wide and operator's head is about 68" above floor level. Gross empty weight is approximately 1,100 lbs. Operating speeds range from 1 to 15 m.p.h. through standard truck transmission. Automatic transmission having high-speed forward and reverse is available at extra cost. "Scoot-Crete" is equipped with flat rack or 14-, 16- or 20-cu. ft. dump box bodies which are easily interchangeable.



"Scoot-Crete" Model N-52

Ripper—Preco, Inc., 6300 E. Slau-son Ave., Los Angeles 22. Ripper clamps on front of Caterpillar 8S and 7S bulldozers and can be adjusted to rip to depth of 22", 15" or 8" or can be fully retracted. One or 2 rippers can be used on same blade. Both replaceable tooth and shank of ripper are made of heat-treated chrome molybdenum steel. Entire unit weighs approximately 650 lbs.



Preco ripper

Powder-Actuated Tool—Ramset Fasteners Division, Olin Industries, Inc., 12117 Berea Rd., Cleveland 11. "Plus-Power Jobmaster," for medium-duty fastening into steel and

concrete, has barrel diameter of $\frac{3}{8}$ ". It weighs 6 $\frac{3}{4}$ lbs. and is operated with one hand. It has ported barrel to dissipate gases, barrel shield adjustable to 42 positions and angle-fire control.

Loaders—Mixermobile Manufacturers, 8027 N.E. Killingsworth St., Portland 20, Oreg. "Scoopmobile" Models LD5 and LD10 are 4-wheel planetary-drive, 4-wheel power-steering front-end loaders. LD5 capacity is $\frac{3}{4}$ to 1 cu. yd. and LD10 capacity is $1\frac{3}{8}$ to 2 cu. yd. New construction feature is hinging of 2 power axle elements together with oscillating center-pin steering coupling. This allows oscillating twist to axles, retaining full power on all 4 wheels in any degree of turning radius. Discharge height of LD5 is 8'6"; of LD10, 9'. Reversing transmission has 8 speeds forward and back. They are equipped with pneumatic tires. Diesel power is optional at extra cost.

Concrete Curing Compounds—Servicised Products Corp., 6051 W. 65th St., Chicago 38. New line of membrane forming concrete curing compounds includes pigmented (white and gray), clear, black and separation types. They produce vapor-tight membrane covering for freshly finished or stripped concrete. They do not run when sprayed or painted on vertical surfaces. Compounds are available in 55-gal. drums.

Bituminous Plant—Pioneer Engineering Works, Minneapolis 13. Portable central hot-mix bituminous plant has all-electric drive. Designated Model 81, it has rated capacity of 60 to 80 yds. per hour, utilizing 72" x 24' dryer. It operates on continuous process principle. It consists of 2 main units. On one unit are burner, combustion chamber, dryer, dust-collector and fan, all mounted on single pneumatic-tired chassis. On other unit are gradation screen, 3 aggregate compartment bin, continuous apron feeder, mixer elevator and pugmill, also on single pneumatic-tired chassis.

Angle Measuring Instrument for Graders—Electro-Level Corp., Sebastopol, Calif. Stewart's electric level consists of protractor level head and lighthouse. Light panel records any change in elevation through blinking action of 3 bulls-eye lights, per-

mitting operator to make required adjustments instantly.

Hoist—Harnischfeger Corp., 4400 W. National Ave., Milwaukee 46. New model "Zip-Lift" electric hoist is designed to be operated with P&H's "One-Hand" rope control. It has all features of regular model. It is guaranteed to operate continuously during intermittent usage for period 25% longer than rated time limit. It has weight-overload safety factor of 5 times rated capacity. Wire rope hoisting is used. Features include double brakes, oil bath lubrication, fully enclosed construction and grease-packed motor bearings. New "Zip-Lift" comes in 2 models with lifting capacities of 500 and 1,000 lbs. Hoisting rates are 25' and 13' per minute. Both models are available with 12' and 18' lift.



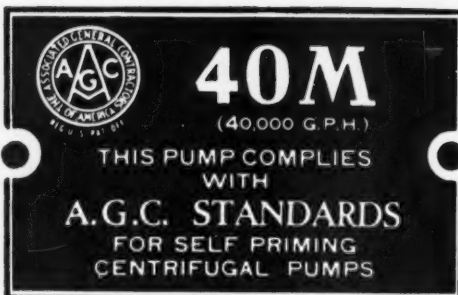
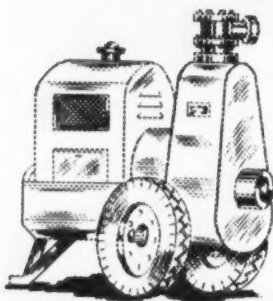
"Zip-Lift" hoist with rope control



... Pfooeey on
that ... they're
A.G.C. Rated Pumps
or I don't buy!

**Look for it
when you buy**

**YOUR GUARANTEE
OF PERFORMANCE**



Self-Priming and Diaphragm Pumps wearing the AGC plate are guaranteed to give **FULL PERFORMANCE!**

They must meet certain standards of pump performance as set up by the PUMP BUREAU.

These standards are approved by the AGC and guaranteed by the manufacturers listed below.



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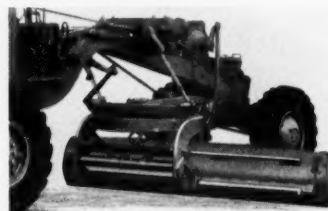
RICE PUMP & MACHINE CO.
Grafton, Wisconsin

STERLING MACHINERY CORP.
Los Angeles, California

WORTHINGTON CORPORATION
Construction Equipment Division
Plainfield, New Jersey

NEW EQUIPMENT • MATERIALS

Graders—*J. D. Adams Manufacturing Co., Indianapolis 6.* Adams motor graders are now available with power-shiftable moldboards. Shift is made by hydraulic power through control in operator's cab. Shift of 26½" to right or left of center position can be made in 10 seconds.



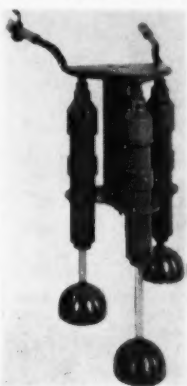
Adams motor grader's power-shiftable moldboard

Expansion Joint Filler—*Owens-Corning Fiberglas Corp., Toledo 1, Ohio.* Fiberglas expansion joint filler is offered in new 42" width. Joint, asphalt-impregnated bonded glass wool board, faced on both sides with heavy asphalt-saturated kraft paper, is designed for use in concrete highways, canals, sidewalks, driveways, airport runways, bridges, factory floors. Improved characteristics cited by manufacturer are: joint will recover more than 70% of its original thickness within one hour; does not lose weight after compression; free edge extrudes less than ¼ that permitted by state and federal specifications; water absorption is less than ½ that allowed.

Masonry Drill—*Holub Industries, Inc., Sycamore, Ill.* Design of "Hi-Twist" drill is intended to overcome dust packing. Combination of oval flutes, narrow lands and fast spiral carries dust out of hole as fast as it forms. Drill is made of tough alloy steel and has Carboly tip. Sizes range from 11/64" to 1" for spiral fluted drills and 1¼" to 1½" for straight fluted drills.

Truck Crane—*Pitman Manufacturing Co., 300 W. 79th Terrace, Kansas City, Mo.* Hydraulically operated outriggers are available as optional equipment on Model B "Hydra-Lift," truck-mounted crane with loadline capacity of 6,400 lbs. and power-swinging boom which telescopes from 12' to 22'. Outrigger legs are raised and lowered by controls at regular operating station.

Backfill Tamper—Gunderson-Taylor Machinery Co., 988 Cherokee St., Denver. Model GT-RV-4 "Super Triplex" backfill tamper is 20 to 40% faster than standard model and imparts 40% heavier impact and more vibration to soil. It weighs 45 lbs. more than standard model and has 1" larger piston. Its effective compaction area is 90 to 100 sq. in. It gives 2,100 blows per minute and compacts to same density as standard model.



Asphalt Plant—Standard Steel Corp., 5028 Boyle Ave., Los Angeles 58. Portable asphalt plant of 1,000-lb. capacity is mounted on rubber-tired wheels and has its own gasoline or diesel engine for operating power. Mixing unit is raised by elevator device. It may be towed with truck-tractor.

Truck Shovel-Crane—Schield Bantam Co., Waverly, Iowa. Model T-35 $\frac{3}{8}$ -yd. truck-mounted shovel-crane is rated at 6 tons capacity. Improvements over previous Model M-49 include stronger main frame, larger shafts and bearings, bigger diameter center pin, newly designed trunnion base with wider trunnion rollers and use of 4 adjustable cam-type hook rollers instead of 3. Vertical swing shaft bearing allows for twice as much radial load on shaft as M-49. Clutch and braking surfaces have been substantially increased. Power boom hoist which gives power lowering as well as raising is retained as standard equipment. T-35 can be mounted on any tandem axle truck having wheelbase of 164" or more.

Curing Paper—The Sisalkraft Co., 205 W. Wacker Drive, Chicago 6. New curing blanket is designed to prevent excessive heat on slab surface. It is bleached white on one side to reflect solar heat. Blankets are available in any width up to 26½'. Manufacturer states that under ordinary job conditions and 72-hour curing period, blankets can be re-used minimum of 15 times.

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NOW OFFERS THE

BEST DIAPHRAGM PUMP

ever built!



ALMOST UNBELIEVABLE!!
But Here Are The Facts -

- ★ AS MUCH AS 400% MORE PUMPING -
at 25 ft. static lift
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WE CAN SUPPORT THESE CLAIMS!

You are invited to see this pump at work on the job, through your Gorman-Rupp distributor. It is absolutely guaranteed to outperform and outlast any 3-inch pump with single driven diaphragm, comparably powered, now on the market.

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Suction accumulator! Pumps more. Runs smoothly! *EXCLUSIVE — another G-R First!*

Diaphragm drive rod spring cushioned on down stroke. Less shock! Less strain! Less wear! *EXCLUSIVE — another G-R First!*

Hook and tighten suction and discharge with hose connected. Easy! Quick! One man handling. *EXCLUSIVE — another G-R First!*

Numerous exclusive features entirely new in diaphragm pumps, under patent applications.



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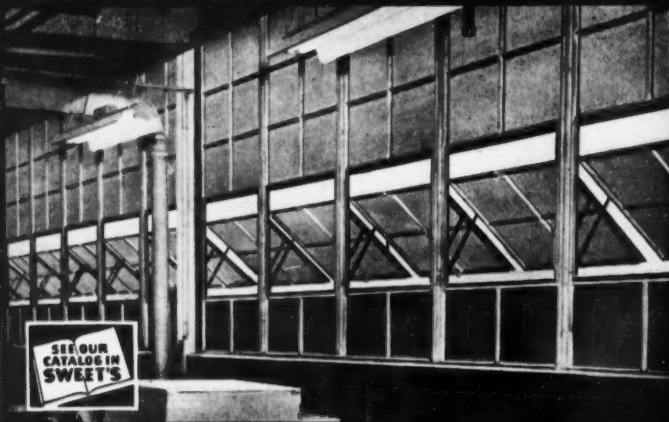
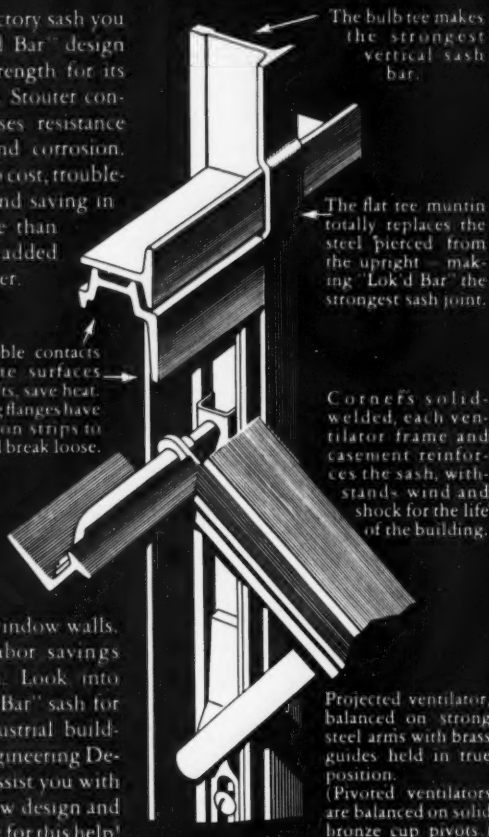
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NEW EQUIPMENT • MATERIALS

Scraper—*Wooldridge Mfg. Co., Sunnyvale, Calif.* "Terra Cobra" 142 is 17.5-yd. rubber-tired 2-wheel tractor-type self-propelled scraper with 10 speeds forward and 2 in reverse. Maximum speed is 35 m.p.h. Powered by 225 h.p. Cummins diesel, it incorporates open-bowl design and has 25" ground clearance. Air-operated power-control unit operates through separate take-off. Other features are positive hydraulic steering, "boiling bowl" loading and positive "roll-out" ejector. Unit has capacity of 14.0 cu. yd. struck, 17.5 heaped.

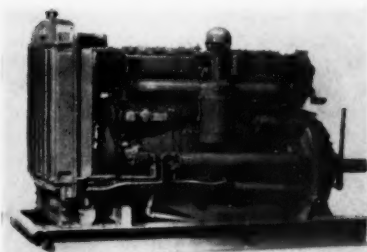


Wooldridge "Terra Cobra" 142

Roller—*Dann Diesel Corp., Empire State Bldg., New York 1.* "Dann-Express Triplex" diesel road roller operates with all 3 rollers acting as single rigid unit. As 3-section machine it has flexibility of movement. Turning radius is 8'. Synchronized power steering turns front and rear rollers simultaneously so that 3 rollers adjust themselves tangentially, all following same track. Middle roller can be raised to allow machine to operate as tandem roller. Single-piece rollers are made of cast steel. Axles extend full width of rollers. They are powered by either Cummins or General Motors diesels or by British Ruston & Hornsby diesels for certain overseas territories. Model DXR-10 is rated 10 to 13 tons, Model DXR-6, 6½ to 8 tons. Rollers are described in Catalog DXRP, available from manufacturer.

Material Spreader—*Highway Equipment Co., Cedar Rapids, Iowa.* Model J spreader for one-man operation handles pelletized calcium chloride and rock salt, sand and chips and stone up to 1½" in size. Feed roll which distributes material is driven from truck drive shaft so that its speed is synchronized with revolutions of rear truck wheels, giving uniform density of spreading pattern. It has overall width of 8' and achieves uniform spread of 7' 6". It is designed to mount on any standard dump body. It replaces tail gate.

Diesel Engines—Murphy Diesel Co., 5333 W. Burnham St., Milwaukee 14. Power range of Murphy diesel engines has been extended upward with addition of 4 new models having bore of $6\frac{3}{8}$ " and stroke of $6\frac{1}{2}$ ". Model 24 is rated at 185 h.p. continuous, 200 h.p. intermittent; Model 124 at 210 h.p. continuous, 225 h.p. intermittent; Model 224 at 200 h.p. continuous, 215 h.p. intermittent; Model 324 at 225 h.p. continuous, 240 h.p. intermittent. Models 24 and 124 are designed to operate at 1,200 r.p.m. continuously; Models 224 and 324 at 1,400 r.p.m. continuously.



Murphy Diesel engine

Shovel—Brady Manufacturing Co., S. E. 30th and Granger, Des Moines. "Lessmann Jr." is detachable version of Lessmann power shovel manufactured by Brady under Lessmann patents. It is designed for mounting on standard Ford or Ferguson tractor. It employs hydraulic crowder arms for ramming to load bucket rather than tractor power. After bucket is loaded and raised, arms are retracted to throw load on rear wheels. Tractors can handle from $\frac{1}{2}$ to $\frac{3}{4}$ yd. buckets, depending on material handled. Shovel will dig 12" below wheel level and will unload at any height up to 10'. Backfill blade is available.

Ditcher—Vermeer Manufacturing Co., Pella, Iowa. Model 6 "Pow-R-Ditcher" is self-powered machine which will dig up to 18" wide at regulated speed of 1', 2', or 3' per minute. Maximum digging depth is 6'. "Level-Matic" wheels allow straight up-and-down digging on slopes. It can be trailed from car, truck or jeep. It is powered by Wisconsin air-cooled engine. Ditcher is offered in 2 other models: 24, with 24" digging width and 6-V with adjustable V-blade for digging drainage ditches.

MORE CONTRACTORS BUY MARLOWS

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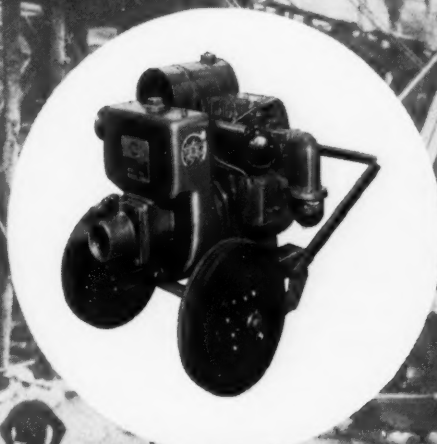
of contractors by a wide margin, are Marlow pumps... built to meet the tough and exacting requirements of the job.

Marlows' have the features that contractors demand.

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All contractors' pumping needs are more dependably handled with just two types of Marlows — Marlow Self-Priming Centrifugals for high capacity pumping — Marlow Mud Hogs for muddy, sandy and trash laden water.

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Marlow manufactures the world's largest line of contractor pumps.

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MARLOW PUMPS

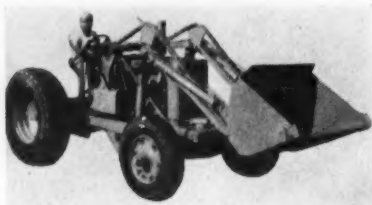
Other factories in France and England

RIDGEWOOD, NEW JERSEY

Branch Plants: DeQueen, Arkansas
West Chicago, Illinois

Distributors and Dealers everywhere

Loader—Baker-Lull Corp., 314 W. 90th St., Minneapolis 20. Diesel-powered "Shovel loader," mounted on Sheppard industrial wheel-type tractor, has front-end loading capacity of 5,000 lbs. It has 8-speed transmission. Available with 7 materials-handling tools, it will crowd and dig below tractor level, lift 5,000-lb load to 10'3", dump it at 8'6" and reach 5'10" ahead of tractor radiator shield. Lift speed is 12 seconds, lowering speed, 9 seconds.



Baker-Lull "Shovel loader"

Surface Coating—Surface Coatings, Inc., 110 Pear St., Atlanta. "Surco" flexible, water-retardant floor-

ing and surface coating materials bind to masonry, concrete, plaster, wood, glass and metal. They are similar to regular concretes or plasters, but special latex-water emulsion binders instead of water alone are used as combining agent. Two types of latex are used—one for increased waterproofing quality, other for increased wear-resistance. Materials can be applied directly and without special preparation to metal decks, stairs, pipe joints and coverings. They can be used as roofing, flashing, putty or caulking compound or mortar for setting tile, marble, brick or limestone.

Pump—Hypro Engineering, Inc., 404 N. Washington Ave., Minneapolis 1. Portable pump, incorporating special vacuum switch to guard against "burn out" when liquid supply runs dry, weighs 27 lbs. and has hinged carrying handle. It will lift water up to 10' unprimed, 22' primed. It has hollow shaft that slips directly onto motor shaft, eliminating need for base plate or special coupling. Ca-

capacity is up to 5 gal. per minute with pressures up to 30 lbs. Motor is 1/4 h.p., 110-volt, heavy-duty capacitor type with manual re-set overload protector and 5' cord.

Compressor—Davey Compressor Co., Kent, Ohio. "Super Chief" Model 210-WDS is 210 c.f.m. compressor of 2-wheel trailer design. It is 145" long, 62" high and 75" wide. Weight is 3,400 lbs. It is equipped with Davey multi-port valves.

Screed—Master Vibrator Co., Dayton 1, Ohio. Light-weight screed with retractable wheels provides up to 9,600 vibrations per minute. Screeds are available from 6' to 36' in length. They are powered by 2 1/2 h.p. Model 8 Briggs & Stratton engines. Screed beam web height has been increased 2" to eliminate need for box-type section on flange of beam, providing lighter weight, and to increase rigidity to assure more accurate strike-off. Wheels permit rolling screed back easily for as many passes as desired.



Master Vibrator screed

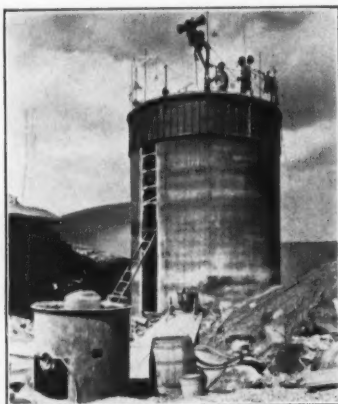
Heaters—Master Vibrator's new line of space heaters are designed for use with kerosene or No. 1 or No. 2 fuel oil. Model B-400 has capacity of 400 BTU per hour with hot air output of 3,500 c.f.m. with both fuel tank and burner safety controls. B-240 has 240 BTU capacity and output of 1,900 c.f.m. B-160 has 160 BTU capacity and output of 1,100 c.f.m. All models have fully automatic thermostat temperature control. They are equipped with pneumatic tires.



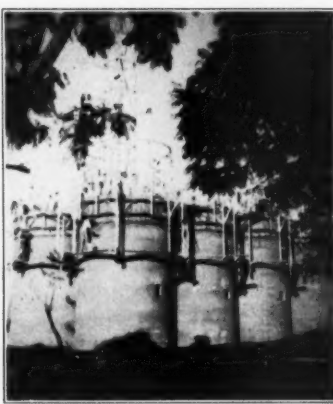
Master Vibrator space heater

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Slipform Equipment with Hydraulic Jacks



Silo in process of erection with typical standard machine. Machines can be purchased or rented.



Equipment in use with wood forms. Rental plan available for all types of construction.

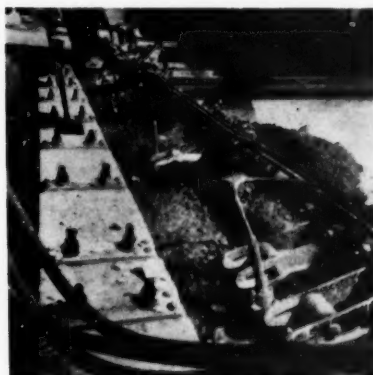
B. M. HEED, INC.

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New York 4, N. Y.



32-page catalog with 60 pictures available on request. Descriptions of various constructions in detail. Write us for your copy.

Vibratory Paving Tube—*Jackson Vibrators, Inc., Ludington, Mich.* Vibratory tube assembly, which attaches to front of finisher or rear of spreader, consists of 2 to 5 vibratory elements, according to width and depth of slab, each embodying 2 closely parallel tubes on which is mounted vibratory submersible motor. Current is supplied by power plant mounted on parent equipment and tube is raised and lowered into concrete by finisher or spreader operator. Tube may be had with any number of motors up to 5 and their frequency may be varied to suit mix.



Jackson vibratory paving tube

Hard-Surfacing Welding Electrode—*General Electric Co., Welding Dept., Schenectady 5, N. Y.* Electrode is designed for build-up work and hard-surfacing applications where deposited metal can be machined or flame-hardened. Designated G-E Type W-98, it can be used in all positions. Arc is of steady-spray type. It can be used in build-up work on road machinery, parts, gears, pinion teeth, pump housings, shafts, sprockets, etc. Generally hardness will be approximately 250 Brinnell as welded and it will flame-harden to about 350 Brinnell. It utilizes alternating or direct current and is made in $\frac{1}{8}$ " to $\frac{1}{4}$ " sizes.

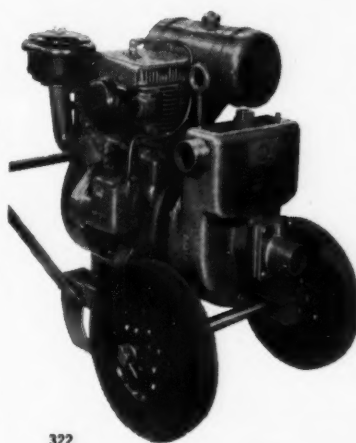
Protection for Cables in Prestressed Concrete—*Anchor Plastics Co., 36-36 36th St., Long Island City 6, N. Y.* "Aeroflex" plastic tubing, for covering tensioning cables or rods to prevent adherence of concrete and provide friction-free covering, is available in 10' random lengths to fit over cable or rods in any standard diameter sizes

Get More with a MARLOW

Only Marlow Self-Priming Centrifugal Pumps Give You All 12 Superior Features for Better Pumping Performance!

AIR-COOLED ENGINE-DRIVEN SELF-PRIMING CENTRIFUGAL PUMPS

| FEATURES | MAR-LOW | PUMP "A" | PUMP "B" | PUMP "C" | PUMP "D" | PUMP "E" |
|--|---------|----------|----------|----------|----------|----------|
| 1. Non-Recirculatory Positive Priming | YES | YES | NO | YES | NO | NO |
| 2. Self-Cleaning | YES | YES | NO | YES | NO | NO |
| 3. Low Suction Inlet | YES | NO | NO | NO | YES | NO |
| 4. Horizontal Discharge | YES | NO | YES | YES | YES | YES |
| 5. Metal - to - Metal Grease - Lube Seal | YES | YES | YES | YES | YES | YES |
| 6. Vacuum Gauge Plug | YES | NO | NO | NO | YES | YES |
| 7. Discharge Gauge Plug | YES | NO | NO | NO | YES | NO |
| 8. Supplied Complete with Male Fittings | YES | NO | NO | NO | NO | NO |
| 9. Impeller Keyed to Shaft | YES | NO | NO | NO | NO | NO |
| 10. Only One Gasket | YES | YES | NO | YES | NO | NO |
| 11. Replaceable Wearing Parts | YES | YES | YES | YES | YES | NO |
| 12. Convertible Base and Chassis | YES | NO | YES | YES | NO | NO |



Yes! Marlow, and Marlow alone, gives you all the features in dependable engine-driven, self-priming centrifugal pumps that bring you high efficiencies and low operating and maintenance costs. That's why contractors are buying more Marlows than any other pumps!

For complete information on how Marlow can help give you more pump performance - at less cost - see your Marlow dealer or write for Bulletin C-52.

MARLOW PUMPS

Other factories in France and England.

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Branch Plants: DeQueen, Arkansas
West Chicago, Illinois

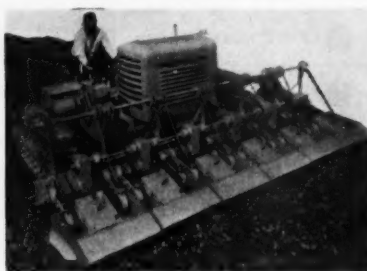
Distributors and Dealers everywhere.

from $\frac{3}{4}$ " and up. Wall thicknesses vary from .030" to .040" depending on diameter size. One-half inch overlap, faced with interlocking longitudinal corrugations, combines with natural springiness of plastic tubing to prevent concrete mix from seeping inside. Tubing is unaffected by rain, frost, ice and will not rip or tear.

Saw—*Ingersoll-Rand Co., 11 Broadway, New York 4.* Portable air-powered circular saw has maximum depth of cut of $4\frac{3}{8}$ ". Called S-12 air saw, it is powered by multi-vane air motor and is designed for use on 90 p.s.i. air pressure. Blade is driven through simple spur gear drive. Throttle lever is located on inside of grip handle. Saw blade is enclosed by housing on top and telescoping guard underneath. Motor and blade housings, base, blade guard and handles are cast aluminum. Depth and angle of cut are changed by adjustments of hand screw and thumb screw. Maximum thickness of material cut when saw is set for 45° bevel cut is

$2\frac{7}{8}$ ". Complete set of blades is available for cutting various materials.

Macadam Road Tamper—*International Vibration Co., 16702 Waterloo Rd., Cleveland 10.* "Vibro-Tamper" combines vibrating and tamping forces to permit laying of sub-base in one operation to depth of 12", manufacturer claims. It is powered by 85 h.p. industrial gasoline engine through gear reduction that provides 30 to 1



"Vibro-Tamper"

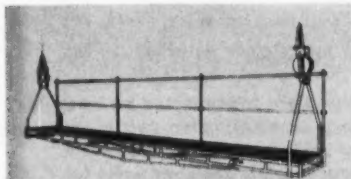
reduction to crawler track. Power is supplied to vibrating-tamping shoes through V-belt drive from engine to 5-section flexibly coupled line shaft. Power take-off at shaft is accomplished by heavy-duty enclosed chain drive at each of 6 vibrating shoes. Power is transmitted to oscillating eccentric gearing in each shoe gear box by double V-belt drive. Six 435-lb. shoes are used to give combined vibrating and tamping effect. Total contact area of 6 shoes is 18 sq. ft. Travel rate varies from 16' per minute to $1\frac{1}{2}$ m.p.h. Shoes are hydraulically raised to vertical non-operating position for travel off job.

Powder-Actuated Tool—*Velocity Power Tool Co., 201 N. Braddock Ave., Pittsburgh 8.* New design feature of "Velocity-Power Driver" is permanently attached spall or protective shield. For close-to-wall jobs section of spall shield may be lifted and turned out of way. Company will continue to offer model with separate spall shield.

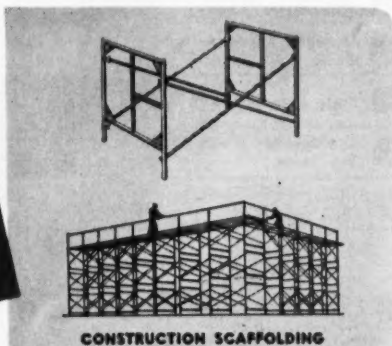
MEETS EVERY NEED!



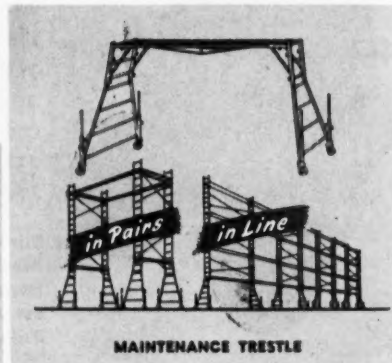
No matter what scaffolding your work requires, Bil-Jax has it . . . fixed, rolling and swing type. Get maximum safety and satisfaction. Rent or buy. Distributors in principal cities.



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BIL-JAX, INC., Archbold, Ohio, U. S. A.

Saw Blade—*Wright Power Saw & Tool Corp., 292 Longbrook Ave., Stratford, Conn.* "Sabre" saw blade is semi-self-sharpening. Due to factory filing and application of very hard chrome-plating, blade tends to sharpen itself as steel wears away under cutting edge of hard chrome. Blade is of twin reciprocating type. It is designed for ripping and angled cuts, as well as for cross-cutting.



The Euclid Road Machinery Co. has placed an experimental rubber-tired bulldozer in operation at a power plant excavation in Southern Ohio. Known as Model TPM, it is powered by a 300 h.p. engine. It is an all-wheel steer, all-wheel drive tractor mounted on 24:00 x 25 tires and weighing 48,000 lbs. and equipped with a bulldozer blade. Working under extremely wet conditions, it is loading various makes of scrapers. Three 15.5-yd. Euclid scrapers on the job are averaging 18.1 yds. per load.

Electrified Steel Panel Subfloor—*Detroit Steel Products Co., 2250 E. Grand Blvd., Detroit 11.* "Electrifloor," manufactured by Detroit Steel Products Co. and National Electric Products Corp., has received listing and approval of Underwriters' Laboratories and has been certified by National Building Code. Floor is of cellular, light-gage steel construction. Header duct system with conductors running through cells of floor permits installation of electrical outlets in each square foot of space. Subfloor is composed of unit panels which can be welded together in any combination desired. Each panel can be carried by 2 workmen.

Concrete Drill—*Tilden Tool Manufacturing Co., San Clemente, Calif.* Water fed attachment for use with special Tilden rotary "Koncrete Kore" drills increases drilling speed and prolongs cutting life of drill, manufacturer states. Water flowing through drill's core cavity removes cuttings and debris and lubricates and cools drill. Attachment fits standard garden hose connections. Water feed assembly includes shut-off valve for driller to control water flow.

Excavator—*Pippin Construction Equipment, Inc., White River Junction, Vt.* Tractor-powered hydraulic excavator, designed and built by Cone Automatic Machine Co. and nationally distributed by Pippin, attaches to light tractors. Known as Model WF-104, it excavates 10' deep and lifts to 12'. It reaches 16' behind tractor and has 12½' side swing from center. Excavator is rigidly supported by 2 hydraulic stabilizers to relieve tractor of working stresses.

Dump Trailer—*Hercules Steel Products Corp., Galion, Ohio.* Two telescopic hoist dump trailer units are 17' single-axle trailer with 10 to 17 cu. yd. capacity and 20' tandem-axle unit with capacity range from 12 to 26 cu. yd. Features of design are extreme front mounting of 3 and 4 sleeve twin telescopic hoisting mechanisms and simplified method of packing telescopic joints. Hoists and bodies may be obtained separately for mounting on any make trailer chassis.

Air Entraining Agent Dispenser—*E. W. Zimmerman, 228 N. La Salle St., Chicago 1.* Dispenser for mounting on paver or mixer will automati-



To a contractor, keeping a gimlet eye on grading problems is as vital as the weather. A Shunk blade on his 'dozer assures him a high quality mud slinger which can take punishment almost forever.

To the original equipment producer, the Shunk blade, as an integral part of his product, means the assurance of almost a century of development. Shunk's modern production facilities, quality product and reputation guarantee favorable competitive relationships.

Need a high quality mud slinger? We'll gladly provide you with full information.

3000 DIFFERENT SPECIFICATIONS



GRADER BLADES

MOLD BOARDS

SCARIFYING BLADES

WRITE FOR OUR
NEW CATALOG



Shunk MANUFACTURING COMPANY
In Our 99th Year

BEST BLADES MADE

BUCYRUS, OHIO

cally dispense given amount of air-entraining agent into water line. Addition of agent is timed to reach water line approximately one second before water is released from measuring tank. Capacity of dispenser is from one to 20 fluid ounces. Filling and discharging is accomplished by gravity flow.

New Construction Movies

W. A. Riddell Corp., Bucyrus, Ohio, offers full-color picture showing "Warco" motor grader in action. Film, shot at Riddell proving grounds and on actual jobs, covers operational features of machine and shows its flexibility.

Hyster grid roller is shown in action on different types of blacktop jobs in sound color movie. It shows method of salvaging aggregate and binder in old bituminous surfaces and fast way of compacting road fills, sub-bases and rolling surface courses. Film may be secured through Caterpillar-Hyster dealers.

Wire Rope Fittings—*Sauerman Bros., Inc., 522 S. Clinton St., Chicago 7.* Booklet contains blueprint drawings, tables and ordering information on open and double wedge sockets, pins and continuous cable clamps. Pictures show fittings in various applications.

Hose Safety—*Hose Accessories Co., 2700 N. 17th St., Philadelphia 32.* *Dangers Under Pressure* is title of safety booklet which emphasizes dangers of handling hose carrying air, gas or steam. It explains proper selection and application of hose couplings.

Vibrating Screens—*Deister Machine Co., 1933 E. Wayne St., Fort Wayne 4, Ind.* Bulletin 55 gives information on heavy-duty types ETP (end tension, pillow-block) and ETU (end tension, unitized) high-speed vibrating screens. Operational features and performance characteristics are described. Elliptical throw is schematically shown.

Buckets—*American Manganese Steel Division, Chicago Heights, Ill.* Catalog sheet outlines features of all-manganese steel back-hoe buckets, has photos taken from various angles and drawings of types of side cutters available.

Hard-Surface Welding Procedure—*American Manganese Steel Division* offers procedure sheets detailing application, correct rod and amount needed and procedure for hardfacing equipment parts. Sheets are available on: jet pump drill pipe, post hole augers, root plow, tractor drive sprockets, tractor rails, diesel engine valves.

Bulldozers—*Gar Wood Industries, Inc., Wayne, Mich.* Catalog F-165 shows 15 models of cable and hydraulic dozers and 3 models of control units available for Allis-Chalmers tractors. It is illustrated with cut-aways, engineering drawings, detailed and on-job photos.

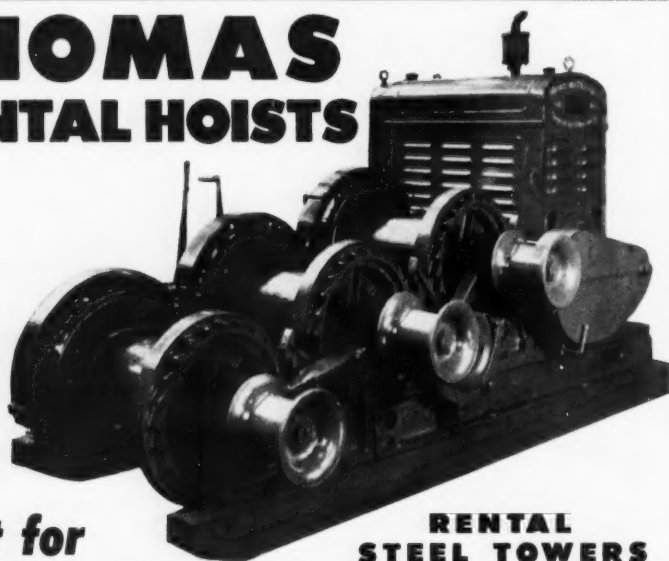
Ditchers—*Gar Wood, Catalog F-167* shows 9 models of Buckeye ditchers. Illustrated with action and still photos, it shows types and sizes of ditchers available, their digging speeds, digging depths, widths, etc. Data are included on engines, h.p., weights and ground bearing pressures.

Earth-Moving Equipment—*The Euclid Road Machinery Co., Cleveland 17.* Booklet, *Cummins Powered Euclid Equipment*, describes 17 standard models of Euclid equipment and 5 Cummins diesels that power them.

Aggregate—*Great Lakes Carbon Corp., 612 S. Flower St., Los Angeles 17.* Series of new bulletins present "Permalite" perlite aggregate. Specifications, technical data and instructions for use are included. Illustrations show typical jobs using insulating plaster and concrete. Typical fireproofing details for steel columns and for suspended ceiling are given in separate leaflets.

Paving Breakers—*Ingersoll-Rand Co., 11 Broadway, New York 4.* Line of breakers from 14-lb. J-10 to 146-lb. R-30 are presented in bulletin, Form 4127. Specifications are given for each machine and jobs each can perform are described. Cross-section view shows important features of construction and design. Tools and accessories available are illustrated.

THOMAS RENTAL HOISTS



Built for nationwide rental

Nationwide contractors rely on Thomas Rental Hoists because quality hoists prevent the expense of a breakdown.

RENTAL STEEL TOWERS

Material Carrying. Man Carrying with safety devices. Heavy Duty 8000-11000-14000 lb. capacities. 30 to 100 HP—single, double, three drum GASOLINE or ELECTRIC.

THOMAS HOIST COMPANY

24 S. Hoyne Ave. Chicago 12, Ill.
Phone: SEeley 3-0303

Mixers—Worthington Corp., Construction Equipment Division, Plainfield, N. J. "Blue Brute" truck mixers are presented in Bulletin R1700-B13 which pictures and describes design features of both LC and LO models of inclined-axis truck-mounted concrete mixers. Specification sheet R-1700-B9 presents 3½S end-discharge tilting mixer.

Cable Controls—Caterpillar Tractor Co., Peoria 8, Ill. Caterpillar cable controls, both front- and rear-mounted are subject of booklet, Form 30598. Cut-away and model views present features of units.

Tractor—Caterpillar booklet (Form 30664) on DW10 rubber-tired tractor discusses jobs on which it can be operated. Photos show machine hauling scrapers, wagons and sprinkler and being used with bulldozer.

Trencher—Cleveland Trencher Co., 20100 St. Clair Ave., Cleveland 17. Bulletin S.116 on Model 110 trencher is illustrated by job applications. Design and construction are described and numbered outline photo shows position of important parts. Information is given on optional extra equipment for special requirements. Table gives 48 digging wheel and crawler speed combinations available in Model 110. Complete dimensions and specifications are included.

Pipe—L. B. Foster Co., P. O. Box 1647, Pittsburgh 30. Specifications for all sizes of pipe from 1/8" to 24" diameter are included in Catalog 575 C. Tables give data and description, wall thickness, weight, etc. of all schedule pipe from Schedule 20 through Schedule 160, as well as standard, extra-strong and double extra-heavy pipe, large O.D. pipe in all wall thicknesses, line pipe, electric-weld tubing, welding fittings and flanges, oil well casing and water well casing.

Vermiculite—Vermiculite Institute, 208 S. La Salle St., Chicago 4. Booklet, *Recommended Building Code Requirements for Vermiculite Plastering, Acoustical Plastic, Fireproofing and Concrete*, presents recommendations based on standards of American Standards Association, American Society for Testing Materials and Vermiculite Institute. Included are concise directions for using data. . . . Vermiculite plaster for wood construc-

Rooshor Head

Wood or steel head with holes for nailing into stringers. Roos Extension Shores take any length 4 x 4 extension.

Wood Upper Member

Permits ease in horizontal or diagonal bracing. No problem of placing an extra bracket or hitting a "set" hole in a steel member.

Steel Pipe, Concrete-Filled

1½" steel pipe filled with concrete . . . will not crush or buckle.

Rooshor Lock Will Not Slip!

This exclusive lock acts like a pair of giant tongs — the greater the load, the greater the grip.



Contractors
prefer
Rooshors
because . . .

Rooshors save time, material and labor . . . so naturally they cut costs on all your shoring operations. They are easily set — instantly and accurately adjusted to any fraction of an inch by *only one man*. There are no loose pins and no screw adjustments to become clogged. They have longer adjustment in their range of three sizes: 8 ft. to 14 ft.; 7 ft. to 13 ft.; and 5 ft. to 9 ft. — higher stories are shored with Roos Extension Shores. Rooshors have been used by contractors from coast to coast and in many foreign countries for over 35 years.

Rooshors and Roos Column Clamps are available for rental with purchase option from Warehouse stocks in principal cities. New equipment is for sale FOB factory.

ROOS COLUMN CLAMPS

Roos Column Clamps, consisting of two identical hinged units, eliminate lost time and motion in fitting and adjusting . . . there is no wrong way to put them on. They have no loose parts to cause needless delays and a hammer is the only tool needed.



BAKER-ROOS, INC.

602 WEST McCARTY STREET
INDIANAPOLIS 6, INDIANA

WRITE TODAY FOR BULLETIN — 453

NEW LITERATURE

tion is presented in leaflet. Detailed line drawing shows wall and ceiling construction, and tabulation gives comparable fire resistances in hours for similar constructions protected with vermiculite plaster and with sand plaster on both plain and perforated gypsum lath. Complete specifications for vermiculite plaster over metal and gypsum lath are included.

Tunneling—*Armco Drainage & Metal Products, Inc., Middletown, Ohio.* Booklet describes use of Armco liner plates in installing sewers and other underground structures. Illustrations show various types of installations, including aggregate bins and conveyor tunnels. Table of physical properties is included.

Drives—*Twin Disc Clutch Co., Racine, Wis.* "New Products" issue of *Production Road*, Twin Disc house magazine, presents 5 new friction and hydraulic drives for powered equipment. Drives include 2-stage hydraulic torque converter, 2-speed transmission, disconnecting hydraulic

power take-off, air-actuated clutch, oil-actuated multiple plate clutch.

Dump Bodies and Hoists—*St. Paul Hydraulic Hoist, Wayne, Mich.* Catalog presents complete line of heavy-duty dump bodies and hoists for on- and off-highway service. Included is regular line of heavy-duty under-body arm-type hoists and "Hi-Dumper" hoists, together with complete complement of dump bodies.

Truck Elevating End-Gate—*National Lift Co., Wayne, Mich.* Latest model "Lift-O-Matic" elevating end-gate for pick-up trucks is presented in new bulletin. Illustrations and description show operation of end-gate. Controls, pump and power unit are also pictured and described.

Concrete Gunning Equipment—*Air Placement Equipment Co., 1011 W. 24th St., Kansas City 8, Mo.* Improved Models 750 and 1,250 "Bond-actors" are described and illustrated in leaflet. Detailed explanation is given of "gunned" or "air placed"

concrete and aggregate principle. Application photos show equipment in use on jobs. Recommended uses are listed.

Resin—*Hercules Powder Co., Wilmington 93, Del.* Booklet gives up-to-date information on use of "Vinsol" in variety of applications. Applications discussed include use in adhesives, asphalt emulsions, hydraulic cement, electrical insulation, floor coverings and protective coatings.

Crane—*Wayne Crane Division, American Steel Dredge Co., Fort Wayne, Ind.* Heavy-duty, self-propelled, wheel-mounted Model 20 is presented in catalog *Meet the Heavyweights*. Featured are simplified deck machinery layout, self-leveling chassis, over-size drums and clutches, rugged construction. Complete specifications, operating data and lifting capacities are included.

Concrete Form—*Kurt Orban Co., 205 E. 42d St., New York 17.* Booklet describes "Rubora" expandable concrete form constructed on lazy-tongs principle that permits adaption of panel size to variety of dimensions. Booklet lists advantages of forms, shows application for floors, roofs, walls, tells how forms are shored and tabulates support spacing requirements.

Concrete Joints—*Flexible Road Joint Machine Co., Warren, Ohio.* Bulletin M-102 discusses poured, pre-molded, ribbon and vibrated joints for concrete highways and airports.

Rock and Sand Dryers—*Standard Steel Corp., 5028 Boyle Ave., Los Angeles 58.* Bulletin 5323 contains information on frame mounting, electric drive and combustion chamber of rock and sand dryers. Photos show trunnion wheels and tire mounting. Details are given on new dust collectors and wet washing systems.

Wire Rope Slings—*Macchylte Co., Kenosha, Wis.* Bulletin 5308 lists slings having approximate breaking strengths of 1,000 lbs. to 243.4 tons with safe loads shown in tons for various angles of use. Pictures and drawings show slings of various types. Three body styles are explained—Atlas 8-part round-braided body, Drew 6-part flat-braided body and Monarch single-part body.

USE WILLIAMS FORM HARDWARE FOR ECONOMY, SAFETY, AND FAST POURING

WILLIAMS PATENTED "NAIL IN THE STUD" EXTERNAL SPACING

CLAMP HAS POSITIVE 1 1/2" OR MORE DISCONNECTION BACK FROM CONCRETE SURFACE

WILLIAMS PATENTED "NAIL IN THE STUD" EXTERNAL SPACING

ANGULARLY ADJUSTABLE UP TO 45°

WATCH THE CORNERS

FOR RIGID ALIGNMENT USE WILLIAMS FORM ALIGNERS IN YOUR FOOTINGS

WRITE FOR CATALOG No. 1952

WILLIAMS FORM ENGINEERING CORP.

WESTERN OFFICE: 2914 N. LOMBARD ST. PH. TW 6453, PORTLAND, OREGON

EASTERN OFFICE: 2304 BREWERTON RD. PH. 54-2500, SYRACUSE, N. Y.

MAIN OFFICE - MADISON AND GARDEN STS. • PHONE 5-9209 • GRAND RAPIDS 7, MICHIGAN

MANUFACTURERS' NOTES

CATERPILLAR TRACTOR Co. plans to construct a new plant, at a location not yet determined, occupying 700,000 sq. ft. of manufacturing floor space. It will be devoted to production of motor graders and industrial wheel tractors. Warren Kinsey, employee relations manager, will be manager of the new plant. . . R. J. Loskill, formerly manager of the sales training division, has been promoted to manager of sales development division. . . Minier Sargent, partner in a Chicago law firm, has been named secretary of Caterpillar.

Oscar J. Ellertson has been elected president of PIONEER ENGINEERING WORKS, INC.

SHUNK MANUFACTURING Co. has started a \$400,000 expansion and modernization program. Shunk has been in business continuously for 99 years.

Joe H. Serkowich, advertising manager of LE TOURNEAU-WESTINGHOUSE Co., has been named "Outstanding Young Advertising Man of 1952" by the Association of Advertising Men of New York City, which sponsored the award.

Edward H. Newby, vice president-controller, and Harold T. Rappe, accounting manager of THE EUCLID ROAD MACHINERY Co., have been elected to membership in the Controllers Institute of America.

INTERNATIONAL HARVESTER Co. and BUCYRUS-ERIE Co. have announced an arrangement under which Bucyrus-Erie industrial tractor equipment will be sold, distributed and serviced by Harvester to its industrial power distributors and eventually will be manufactured by Harvester. Bucyrus-Erie has need for additional facilities for the manufacture of its products other than tractor equipment and for that reason has decided to withdraw eventually from the manufacture of this equipment for the Harvester line of industrial tractors.

LE ROI Co. is sending a demonstration unit of its "Tractair" throughout country to acquaint contractors with its possibilities. Unit consists of "Tractair" mounted on trailer and panel truck equipped with air tools, and film projector and screen for showing films on design, construction and use of "Tractair."

CONSERCO

Transit Mixer Trucks

FOR RENT

In the months to come, you will have the opportunity to figure on many construction projects that will be too large for you to handle with the equipment you now own.

Such projects are made accessible to those who employ the CONSERCO system. A system that has been the answer for many contractors and concrete producers for the past fourteen years.

CONSERCO offers monthly LEASES on High Discharge and Horizontal Transit Mixers mounted on Heavy Duty Tandem Drive Trucks. The lessee has complete control of the equipment during the contract period.

In these days of high prices and higher taxes it will pay you to consider using our RENTAL service.

We also have available for SALE several models of mixers and trucks.

Write or call us for additional information.

* * *

CONSERCO CO.

River Road & B. & O. R. R.

Washington 16, D. C.

Phone: OLiver 4-2011

BARBER-GREENE Co. has established a new sales assistance group, the "Field Engineer Section," to provide on-the-spot factory and engineering assistance to distributors and their customers. They will supplement the activities of 8 area sales managers.

A new corporate name, WACO MANUFACTURING Co., replaces the former name, Wilson-Albrecht Co. New name was selected to identify firm more closely with brand of "Waco" steel scaffolding products. . . Frank X. Mangan has been elected president of the company.

L. B. FOSTER Co. has established a new office in Los Angeles to serve the West Coast market.

Howard W. Dodson has been appointed vice president of the LESSMANN MANUFACTURING Co. by David G. Neuman, president of United Steel Barrel Co. which recently purchased the Lessmann company. Mr. Dodson is also vice president in charge of production of United Steel Barrel Co.

Important engineering changes under his direction are anticipated for the Lessmann power crowder-arm loader.

Clarke Tryon has been appointed sales manager of RAMSET FASTENERS, INC., division of OLIN INDUSTRIES, INC. . . Robert Cole has been named advertising and sales promotion manager of Olin.

S. R. Zimmerman, Jr., has been elected a director of RAYBESTOS-MANHATTAN, INC.

Dale McKee has been elected vice president of engineering of BAKER-LULL CORP. William Norlander succeeds him as chief engineer.

J. H. Tiller has been appointed assistant sales manager of THE GALION IRON WORKS & MFG. Co.

HARNISCHFEGGER CORP. has received the George Washington Medal from the 1952 National Awards Jury of Freedoms Foundation in recognition of its advertising campaign, a

public service series, dramatizing the importance of active, positive citizenship and interest in national economic and political problems of government.

CLARK EQUIPMENT Co. has acquired all the capital stock of THE ROSS CARRIER Co. MICHIGAN POWER SHOVEL Co., a Ross subsidiary, is included in the transfer. Production and administration of Ross Carrier and Michigan Power Shovel will be integrated with activities of the Clark organization, George Spatta, Clark president, stated.

L. M. Case has been named assistant manager of rock drill sales for LeRoi Co.

J. A. Hill has been elected vice president and sales manager of THOR POWER TOOL Co. John A. McGuire is vice president in charge of labor relations. He retains his present title of chairman of the executive committee. B. H. Johns is vice president in charge of rock drill sales. W. B. Hunn is vice president in charge of the company's Los Angeles Works.

Your Surety Partner

Given adequate equipment, the "know how" derived from experience, skilled personnel, and financial stability, the successful contractor needs only to have an established "surety partner" to operate smoothly and with dispatch.

This partner must be able to "talk the language," to act unfalteringly and unerringly and must be on its toes when projects are considered and bids are to be made.

SUCH A PARTNER IS

MASSACHUSETTS BONDING and INSURANCE COMPANY

Over 45 years of active and expert service to contractors. Its contract bond department is amply staffed with engineers and underwriters experienced in smoothing the way when bonds are required.

Manufacturers' addresses are listed on page 236

Aggregate (Light-Weight)
Great Lakes Carbon Corp.

Air Entraining Agents
A. C. Horn Co.

Asphalt Joint Sealer
Servicised Products Corp.

Asphalt Plants (Portable)
Barber-Greene Co.
Iowa Mfg. Co.
White Mfg. Co.

Asphalt Tile
Coleman Floor Co.

Backfillers
Bucyrus-Erie Co.
Cleveland Trencher Co.
Gradall Division
Harnischfeger Corp.
Parsons Co.
Unit Crane and Shovel Corp.

Batchers
Blaw-Knox Division
Butler Bin Co.
Construction Machinery Co.
Heltzel Steel Form & Iron Co.
C. S. Johnson Co.

Bearings (Anti-Friction, Tapered Roller)
Hyatt Bearings Division
Timken Roller Bearing Co.

Bins
Blaw-Knox Division
L. Burmeister Co.
Butler Bin Co.
Gruendler Crusher & Pulverizer Co.
Heltzel Steel Form & Iron Co.
Iowa Mfg. Co.
C. S. Johnson Co.
Universal Engineering Corp.

Bits (Detachable Drill)
Ingersoll-Rand Co.
Joy Manufacturing Co.
Termite Drills, Inc.
Timken Roller Bearing Co.

Blades (Grader, Maintainer, Snow Plow, Bulldozer, Scarifier)
Paper-Calmenson & Co.
Shunk Manufacturing Co.

Blasting Accessories
American Cyanamid Co.

Bridges
American Bridge Division
Armco Drainage & Metal Products
Fort Pitt Bridge Works

Buckets (Clamshell & Dragline)
Blaw-Knox Division
Bucyrus-Erie Co.
Harnischfeger Corp.
C. S. Johnson Co.

Owen Bucket Co.
Wellman Engineering Co.

Buckets (Concrete)
Blaw-Knox Division
Construction Machinery Co.
Heltzel Steel Form & Iron Co.
Owen Bucket Co.

Buildings (Steel)
Allied Structural Steel Cos.
American Bridge Division
Armco Drainage & Metal Products
International Steel Co.
Macomber, Inc.
Truscon Steel Division

Bulldozers
Bucyrus-Erie Co.
Wm. Bros. Boiler & Mfg. Co.
Gar Wood Industries, Inc.
LeTourneau-Westinghouse Co.

Car Pullers
Clyde Iron Works
Superior-Lidgerwood-Mundy Corp.

Carpet
Coleman Floor Co.

Cement (Common and Special)
Lehigh Portland Cement Co.
Lone Star Cement Corp.
Marquette Cement Mfg. Co.
Medusa Portland Cement Co.
Universal Atlas Cement Co.

Cement (White)
Medusa Portland Cement Co.
Trinity White, General Portland Cement Co.
Universal Atlas Cement Co.

Clamps (Hose)
Dixon Valve & Coupling Co.

Clothing (Cold Weather)
Insulated Clothing Mfg. Co.

Compressors
Allis-Chalmers Co.
Gruendler Crusher & Pulverizer Co.
Ingersoll-Rand Co.
Joy Manufacturing Co.
LeRoi Co.
O. K. Machinery Division
Worthington Corp., Construction Equipment Division

Concrete Curing Material
A. C. Horn Co.

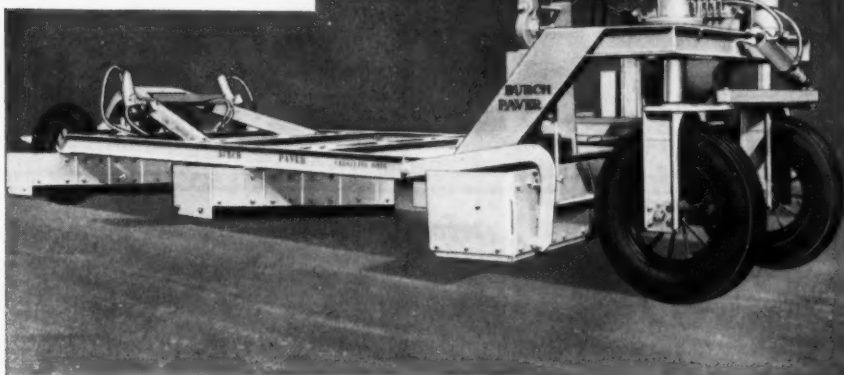
Concrete Mixers, Pavers, Tampers
Chain Belt Co.
Construction Machinery Co.
Foote Construction Equipment Division
Jaeger Machine Co.
Knickerbocker Co.
Koehring Co.
Kwik-Mix Co.
T. L. Smith Co.
Worthington Corp., Construction Equipment Division



Model 12 PAVER and RESURFACER

for Mixing, Spreading,
and Leveling
Bituminous Material in
ONE-PASS Operation

- Hydraulic steering on both front and rear wheels provides easy maneuvering.
- Entire frame hydraulically lifted for easy transportation.
- Machine is adjustable to conform to any grade or road contour.
- Material is rolled and mixed FOUR times before strikeoff blade acts on it.
- Dividing blade is hydraulically controlled to distribute material either to right or left for desired distribution.
- The Burch Model 12 is economical and easy to operate—does the job right.



FOR COMPLETE INFORMATION WRITE DEPT. C-73.

The BURCH Corporation
CRESTLINE, OHIO, U.S.A.
MANUFACTURERS OF EQUIPMENT
FOR CONSTRUCTION AND MAINTENANCE
OF ROADS AND STREETS

ADVERTISERS' PRODUCTS

Concrete Vibrators

Concrete Surfacing Machinery Co.
Electric Tamper & Equipment Co.
Ingersoll-Rand Co.
Master Vibrator Co.
Vibro-Plus Products, Inc.
White Mfg. Co.

Conveying Machinery

Barber-Greene Co.
Chain Belt Co.
Iowa Mfg. Co.
Joy Manufacturing Co.
Smith Engineering Works
Universal Engineering Corp.

Crane Safety Alarm

Electro-Alarm Safety Devices

Cranes

Austin-Western Co.
Baldwin-Lima-Hamilton Corp.
Bay City Shovels, Inc.
Bucyrus-Erie Co.
Cleveland Trencher Co.
Clyde Iron Works
Gar Wood Industries, Inc.
Harnischfeger Corp.
Koehring Co.
Link-Belt Speeder Corp.
Manitowoc Engineering Corp.
Marion Power Shovel Co.
Michigan Power Shovel Co.
Northwest Engineering Co.
Osgood-General Excavator Co.
Thew Shovel Co.
Unit Crane and Shovel Corp.

Crushing Machinery

Allis-Chalmers Co.
Austin-Western Co.
Gründler Crusher & Pulverizer Co.
Iowa Mfg. Co.
Smith Engineering Works
Universal Engineering Corp.

Culverts

Albert Pipe Supply Co.
Armco Drainage & Metal Products

Cups (Paper Drinking)

United States Envelope Co.

Cutters (Abrasive)

Wodack Electric Tool Corp.

Decking (Roof Steel & Aluminum)

Macomber, Inc.

Derricks

Clyde Iron Works

Doors (Metal, Wood)

Ceco Steel Products Corp.
International Steel Co.
Kinnear Mfg. Co.
R. C. Mahon Co.
Truscon Steel Division

Dredging Machinery

Baldwin-Lima-Hamilton Corp.
Bucyrus-Erie Co.
Harnischfeger Corp.
Marion Power Shovel Co.
Northwest Engineering Co.

Drills & Drilling Machinery

Bucyrus-Erie Co.
Buda Co.
Ingersoll-Rand Co.
Joy Manufacturing Co.
Termite Drills, Inc.
Timken Roller Bearing Co.
Worthington Corp., Construction Equipment Division

Drills (Electric)

Wodack Electric Tool Corp.

Drinking Water Dispensers

United States Envelope Co.

Elevators (Material)

Chain Belt Co.
Iowa Mfg. Co.
O.K. Machinery Division
Smith Engineering Works
Universal Engineering Corp.

Engines

Allis-Chalmers Tractor Div.
American Hoist & Derrick Co.
Buda Co.
Caterpillar Tractor Co.
Continental Motors Corp.
Cummins Engine Co.
Detroit Diesel Engine Division
Harnischfeger Corp.
Hercules Motors Corp.
Ingersoll-Rand Co.
International Harvester Co.
LeRoi Co.
Murphy Diesel Co.
Waukesha Motor Co.
Wisconsin Motor Corp.

Expansion Joints

Keystone Asphalt Products Co.
Laclede Steel Co.
Servicised Products Corp.

Explosives

American Cyanamid Co.

Financing

C.I.T. Corp.

Finishing Machines (Bituminous)

Barber-Greene Co.
Burch Corp.
Foote Construction Equipment Division

Finishing Machines (Concrete)

Blaw-Knox Division

Floor Covering

Coleman Floor Co.

Flooring

Truscon Steel Division

Forms (Concrete) and Accessories

Baker-Roos, Inc.
Blaw-Knox Division
Economy Forms Corp.
Gateway Engineering Co.
Heltzel Steel Form & Iron Co.
A. C. Horn Co.
Joseph T. Ryerson & Son, Inc.
Superior Concrete Accessories, Inc.
Symons Clamp & Mfg. Co.
Universal Form Clamp Co.
Walton Plywood Co.
Williams Form Engineering Corp.

Foundations

Raymond Concrete Pile Co.

Generating Sets (Electric)

Caterpillar Tractor Co.
Master Vibrator Co.
Murphy Diesel Co.

Graders

J. D. Adams Mfg. Co.
Allis-Chalmers Tractor Div.
Austin-Western Co.
Caterpillar Tractor Co.
Euclid Road Machinery Co.
Galion Iron Works & Mfg. Co.

Gradall Division
Koehring Co.
W. A. Riddell Corp.

Gravel Plants (Portable)

Gründler Crusher & Pulverizer Co.
Iowa Mfg. Co.
Smith Engineering Works

Grinders (Electric)

Wodack Electric Tool Corp.

Hammers (Electric)

Master Vibrator Co.
Wodack Electric Tool Corp.

Hammers (Gasoline)

Barco Manufacturing Co.

Hardsurface (Welding)

American Manganese Steel Division

Hoists

American Hoist & Derrick Co.
Clyde Iron Works
Construction Machinery Co.
Gar Wood Industries, Inc.
Gründler Crusher & Pulverizer Co.
Harnischfeger Corp.
Ingersoll-Rand Co.
Joy Manufacturing Co.
McKiernan-Terry Corp.
O.K. Machinery Division
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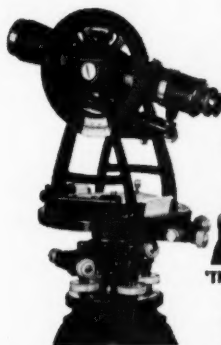
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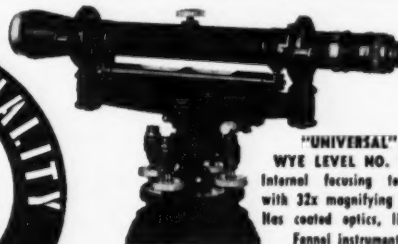
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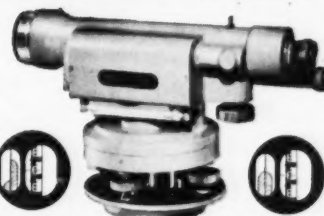
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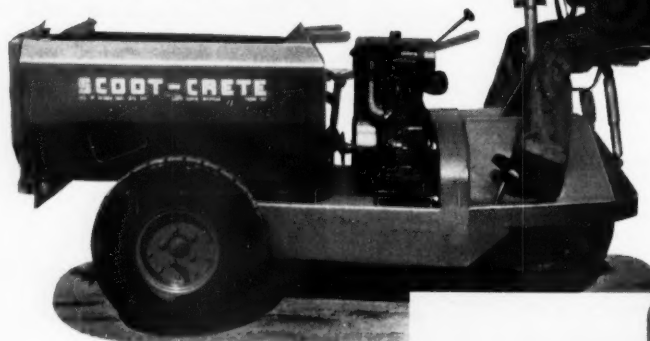
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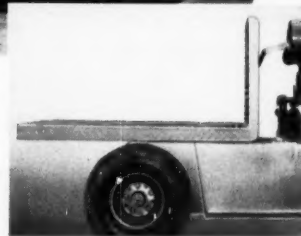
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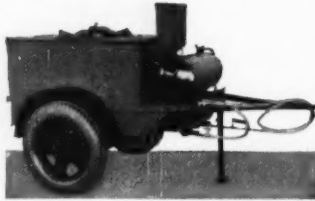
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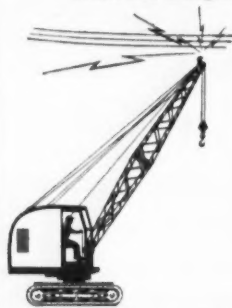
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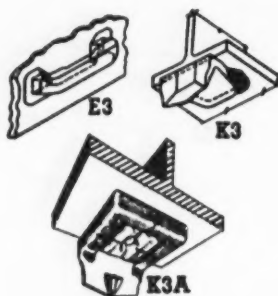
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C. W. CUNNINGHAM
Condon-Cunningham Co.
Omaha, Nebraska

D. W. WINKELMAN
D. W. Winkelman Co.
Syracuse, New York

District Directors

DISTRICT 1

Montana
DAN J. MOONEY
Cahill-Mooney Construction Co.
Butte B54

Washington
JAMES W. CAWDREY
Cawdrey & Veno
Seattle B54

A. S. MACDONALD
Strong & Macdonald, Inc.
Tacoma Hv56

WAYNE C. SUTTON
Washington Asphalt Co.
Seattle H56

Idaho
PAUL VERNON
Vernon Bros. Co.
Boise Hv55

Oregon
RAY H. NORTHCUTT
Guy F. Atkinson Co.
Portland Hv54

J. R. WININGER
Warren Northwest Inc.
Portland H54

Alaska
R. H. STOCK
Stock & Grove Inc.
Anchorage Hv54

DISTRICT 2

Arizona
EDWARD O. EARL
San Xavier Rock & Sand Co.
Tucson B54

California
FRED J. EARLY, JR.
Fred J. Early, Jr., Co., Inc.
San Francisco B54

CHAS. L. HARNEY
Chas. L. Harney, Inc.
San Francisco Hv55

ROBERT V. EDWARDS
American Pipe and Construction Co.
Los Angeles Hv56

J. A. THOMPSON
J. A. Thompson and Son
Inglewood H54

Nevada
E. J. MAUPIN, JR.
Dodge Construction Inc.
Fallon H54

DISTRICT 3

Colorado
JAMES B. KENNEY
James B. Kenney, Inc.
Denver H54

DAVID A. OLSON
Olson & Hart
Denver Hv54

Wyoming

HOMER A. SCOTT
Peter Kiewit Sons' Co.
Sheridan H54

Utah
J. P. GIBBONS
Gibbons & Reed Co.
Salt Lake City Hv55

New Mexico
CHARLES H. LEMBKE
Lembke Construction Co.
Albuquerque B54

DISTRICT 4

Louisiana
A. N. GOLDBERG
A. N. Goldberg, Inc.
New Orleans H54

W. MURRAY WERNER
The Werner Co.
Shreveport B56

Oklahoma
W. D. AMIS
Amis Construction Co.
Oklahoma City H55

H. B. BASS
D. C. Bass & Sons Construction Co.
Enid B54

Arkansas
BEN M. HOGAN
Ben M. Hogan & Co.
Little Rock H54

The symbols denote the year in which a director's term expires, and the type of construction he represents; B—Building; H—Highway; Hv—Heavy.

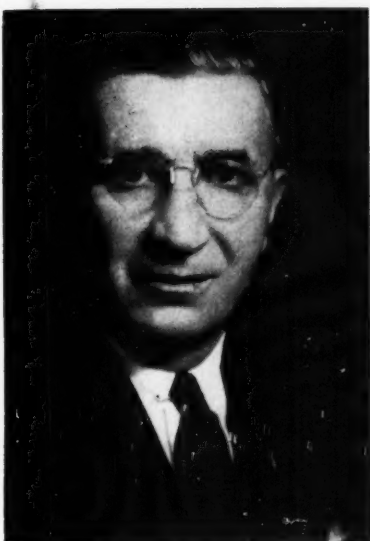
(Directors continued on page 250)

**National Officers
for 1953**

**President
C. P. Street**



Chase



**Vice President
John MacLeod**



Lionel Heymann

**Secretary-Treasurer
William Muirhead**



Acad

**Managing Director
H. E. Foreman**

National A.G.C.



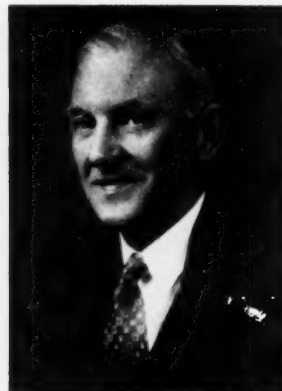
Miller of Washington

James D. Marshall
Executive Director



F. Marton Clark

Charles S. Embrey
Assistant Executive Director



Harris & Ewing

John C. Hayes
Counsel



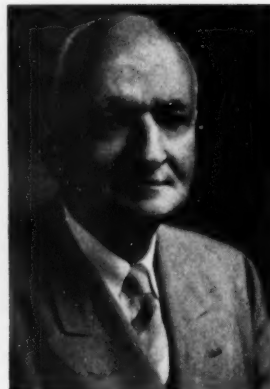
Ackad

Charlson I. Mehl
Administrative Assistant



Lionel Heymann

John B. Swem
Assistant Treasurer



Harris & Ewing

Welton A. Snow
Manager
Building Division



Udell Bros.

John K. Bowersox
Assistant, Building Division



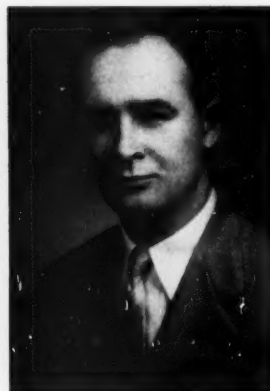
Harris & Ewing

James M. Sprouse
Manager
Heavy Division



Chase

Archie N. Carter
Manager
Highway Division



Harris & Ewing

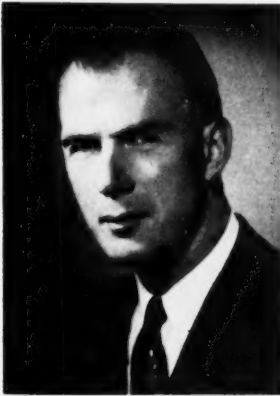
Daniel K. Donovan
Assistant, Highway Division



Brooks

Burt L. Knowles
Legislative Service

Headquarters Staff



Ackad

William E. Dunn
Manager
Labor Relations



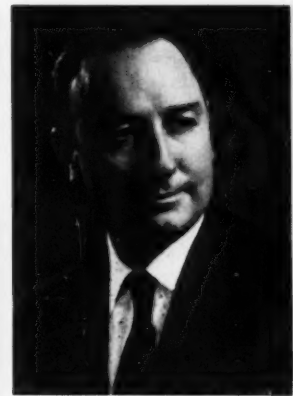
Harris & Ewing

Edward T. Kelly
Labor Service Advisor



Miller of Washington

William E. Woodruff
Manager
Public Relations



Miller of Washington

William G. Dooley, Jr.
Assistant Manager
Public Relations



Miller of Washington

Michael A. Cautela
Public Relations-Constructor



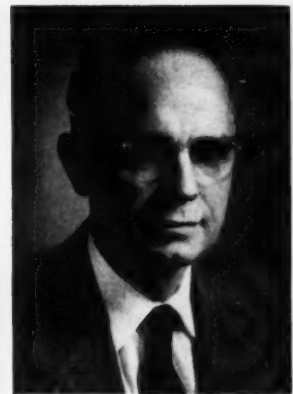
Miller of Washington

Duane L. Cronk
Public Relations-Constructor



Lorstan Studios

Edward A. Greene
Public Relations-Constructor



Ackad

Harry J. Kirk
Manager
Safety-Research



Harris & Ewing

Willis L. Hatcher
Membership



Ackad

Marjorie S. Beck
Business Manager
The Constructor



Brooks

Mrs. M. Russell Edmonston
Office Assistant



Miller of Washington

Mrs. Whyland Shaffer
Office Assistant

A.G.C. DIRECTORY

(District Directors—continued)

Texas

HERMAN BROWN
Brown & Root Inc.
Austin

Hv54

FRED FISHER

Fisher Construction Co.
Houston

B55

J. RUTLEDGE HILL

Gifford-Hill & Co.
Dallas

H56

F. S. OLDT

F. S. Oldt Co.
Dallas

Hv55

DISTRICT 5

Kansas

E. O. JOHNSON

Johnson Brothers Construction Co.
Salina

B54

E. C. STEWART

Globe Construction Co.
Wichita

Hv54

Nebraska

WARDNER SCOTT

W. A. Lynn Construction Co.
Lincoln

Hv56

Missouri

JOSEPH E. LATTA

J. E. Latta Construction Co.
St. Louis

Hv54

ROBERT W. LONG

Long Construction Co.
Kansas City

B54

DISTRICT 6

Iowa

H. L. HOAK

Hoak Construction Co.
Des Moines

Hv54

GEORGE C. KOSS

Koss Construction Co.
Des Moines

H55

RUDOLPH W. WEITZ

The Weitz Co., Inc.
Des Moines

B54

Minnesota

C. T. NAUGLE

Naugle-Leck Inc.
Minneapolis

B54

S. R. OKES

Okes Construction Co.
Saint Paul

H56

North Dakota

JOSEPH M. POWERS

T. F. Powers Construction Co.
Fargo

B54

South Dakota

J. L. MATERI

Northwestern Engineering Co.
Rapid City

H54

DISTRICT 7

Illinois

PERCY F. LOISELLE

Triangle Construction Co.
Kankakee

H55

A. L. JACKSON

A. L. Jackson Co.
Chicago

B55

LESTER C. ROGERS

Bates & Rogers Construction Corp.
Chicago

Hv54

Indiana

WM. H. JUNGCLAUS

Wm. P. Jungclaus Co.
Indianapolis

B54

ROBERT E. O'CONNOR

J. C. O'Connor & Sons Inc.
Fort Wayne

H56

Wisconsin

E. G. HOEPPNER

Hoepfner-Bartlett Co.
Eau Claire

B54

DISTRICT 8

Michigan

C. L. DAVIS

Miller-Davis Co.
Kalamazoo

B55

LEET M. DENTON

Denton Construction Co.
Detroit

H54

W. J. STOREN, Jr.

W. J. Storen Co.
Detroit

Hv55

Ohio

FRED I. ROWE

W. L. Johnson Construction Co.
Columbus

Hv55

E. J. WHEELER

Frank Messer & Sons, Inc.
Cincinnati

B56

West Virginia

RAY E. RITCHIE

Boso & Ritchie Inc.
Ravenswood

H54

DISTRICT 9

Kentucky

J. F. NICOLIN

Hays & Nicoulin Inc.
Louisville

B54

Mississippi

W. G. WETMORE

Jackson

B54

Tennessee

MARK K. WILSON, Jr.

Mark K. Wilson Co.
Chattanooga

B54

Alabama

JOHN R. LATHRAM

Sullivan, Long & Hagerty
Birmingham

H55

DISTRICT 10

North Carolina

V. B. HIGGINS

V. B. Higgins Co.
Greensboro

Hv56

GEORGE W. KANE

Roxboro

B54

NELLO L. TEER, Jr.

Nello L. Teer Co.
Durham

H54

South Carolina

F. L. SHACKELFORD

Potter & Shackelford Construction Co., Inc.
Greenville

B55

Georgia

P. D. CHRISTIAN, Jr.

Christian & Bell Co.
Atlanta

B54

W. M. WHEELER

J. A. Jones Construction Co.
Atlanta

Hv56

Florida

J. L. EWELL

Ewell Construction Co.
Lakeland

H56

FRANK J. ROONEY

Frank J. Rooney Inc.
Miami

B54

Virginia

B. F. PARROTT

B. F. Parrott & Co., Inc.
Roanoke

B55

DISTRICT 11

District of Columbia

F. H. MARTELL

F. H. Martell Co., Inc.
Washington

B54

Delaware

FREDERIC G. KRAPE

Wilmington

B54

Pennsylvania

H. B. ALEXANDER

H. B. Alexander & Son, Inc.
Harrisburg

B56

MAX C. HARRISON

Harrison Construction Co.
Pittsburgh

H55

HOWARD H. STURDY

Dravo Corporation
Pittsburgh

Hv54

Maryland

JOHN K. RUFF

John K. Ruff Co.
Baltimore

B54

New Jersey

HENRY J. R. DORER

Ell-Dorer Contracting Co.
Irvington

Hv54

WILLIAM H. WELDON

The Weldon Contracting Co.
Westfield

H54

The symbols denote the year in which a director's term expires, and the type of construction he represents: B—Building; H—Highway; Hv—Heavy.

New York

H. C. TURNER, JR.
Turner Construction Co.
New York

R. P. BAYARD
Johnson, Drake & Piper, Inc.
New York

DISTRICT 12

Connecticut

GEORGE R. JOHNSON
Richard Johnson Co.
Hartford

Vermont

(No Director)

New Hampshire

PARKER H. RICE
Manchester Sand & Gravel Co.
Manchester

Massachusetts

CHARLES B. SOLOMON
Geo. B. H. Macomber Co.
Boston

Rhode Island

H. V. COLLINS
Providence

Maine

WILLIAM J. SALTER
Stewart & Williams, Inc.
Augusta

(AT LARGE)

FRANK F. BURROWS

Williams & Burrows, Inc.
Burlingame, Calif.
(Division Chairman)

C. W. CUNNINGHAM

Condon-Cunningham Co.
Omaha, Nebraska
(Division Chairman)

P. M. THORNTON

Thornton Construction Co.
Hancock, Michigan
(Division Chairman)

Advisory Board

(Past President Members)

GEO. B. WALBRIDGE
Walbridge, Aldinger Co.
Detroit, Michigan

A. P. GREENSFELDER
Fruin-Colnon Contracting Co.
St. Louis, Missouri

W. A. KLINGER
W. A. Klinger Co.
Sioux City, Iowa

E. P. PALMER
Senior and Palmer, Inc.
New York, New York

GUY F. ATKINSON
Guy F. Atkinson Co.
So. San Francisco, California

H. B. ZACHRY
H. B. Zachry Co.
San Antonio, Texas

M. W. WATSON
Topeka, Kansas

DAN W. KIMBALL
Owen-Ames-Kimball Co.
Grand Rapids, Michigan

WILLIAM MUIRHEAD
Wm. Muirhead Construction Co.
Durham, North Carolina

W. S. BELLOWES
W. S. Bellows Construction Corp.
Houston, Texas

F. W. PARROTT
C. F. Lytle Co.
Sioux City, Iowa

D. W. WINKELMAN
D. W. Winkelman Co.
Syracuse, New York

WALTER L. COUSE
Walter L. Couse & Co.
Detroit, Michigan

GLEN W. MAXON
Maxon Construction Co., Inc.
Dayton, Ohio

ARTHUR S. HORNER
A. S. Horner Construction Co.
Denver, Colorado

(Division Vice-Chairmen Member)

M. CLARE MILLER
San Ore Construction Co.
McPherson, Kansas (H)

(Appointed Members)

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Guy F. Atkinson Co.
So. San Francisco, Calif.

FRANK BARBER
Barber Bros. Co.
Baton Rouge, Louisiana

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C. W. Blakeslee & Sons, Inc.
New Haven, Connecticut

ALEX BREST
Duval Engineering & Construction Co.
Jacksonville, Florida

C. E. COOKE
Cooke Contracting Co.
Detroit, Michigan

DEMMIE H. COX
Texas Gulf Construction Co.
Houston, Texas

MORRIS E. DEWITT
Porter-DeWitt Construction Co.
Poplar Bluff, Missouri

N. K. DICKERSON, JR.
Dickerson, Inc.
Monroe, North Carolina

C. B. FORD
Forcum-James Co.
Dyersburg, Tennessee

M. F. GAUTIER
Carrico & Gautier
San Francisco, California

H. H. HALL
H. H. Hall Construction Co.
East St. Louis, Illinois

IRA H. HARDIN
Ira H. Hardin Co.
Atlanta, Georgia

D. A. HARMON
Harmon Construction Co.
Oklahoma City, Oklahoma

F. W. HELDENFELS, JR.
Heldenfels Bros.
Corpus Christi, Texas

GEORGE HELLER

Johnson, Drake & Piper, Inc.
Minneapolis, Minnesota

J. A. HENDERSON

United Construction Co.
Winona, Minnesota

V. N. HOLDERMAN

V. N. Holderman & Sons, Inc.
Columbus, Ohio

CARL B. JANSEN

Dravo Corporation
Pittsburgh, Pennsylvania

THOMAS H. JOYCE, JR.

Joyce Bros. Contracting Co.
Springfield, Illinois

M. B. KILLIAN

M. B. Killian & Co.
San Antonio, Texas

CARL E. NELSON

Carl E. Nelson Co.
Logan, Utah

CARL W. OLSON

Olson Construction Co.
Lincoln, Nebraska

WALTER A. PRIESTER

Priester Construction Co.
Davenport, Iowa

C. R. RALPH

Kaw Paving Co., Inc.
Topeka, Kansas

LEO P. RICHARDSON

W. E. Wood Co.
Detroit, Michigan

FRANK W. ROBERTSON

Robertson-Henry Co.
Huntington, W. Virginia

JOHN H. SELLEN

John H. Sellen Construction Co.
Seattle, Washington

R. A. SMITH

P. J. Walker Co.
Los Angeles, California

WILLIAM SOULE

Soule Construction Co.
Pensacola, Florida

R. S. URSPRUNG

R. S. Ursprung Co.
Cleveland, Ohio

(Advisory Board continued on next page)

A.G.C. DIRECTORY

(Advisory Board Members—continued)

JOHN A. VOLPE
Volpe Construction Co.
Malden, Massachusetts

ARTHUR H. WELLS
John Griffiths & Son Construction Co.
Chicago, Illinois

MARSHALL J. WYLIE
Wylie Bros.
Albuquerque, N. Mexico

Division Officers

Building Contractors' Division

Chairman

FRANK F. BURROWS
Williams & Burrows, Inc.
Burlingame, California

Vice-Chairman

FRANK J. ROONEY
Frank J. Rooney, Inc.
Miami, Florida

H. E. FOREMAN
Managing Director

J. D. MARSHALL
Executive Director

C. S. EMBREY
Assistant Executive Director

Chairman

ROBERT PATTEN
Managing Director
Carolinas Branch

Heavy Construction and Railroad Contractors' Division

Chairman

C. W. CUNNINGHAM
Condon-Cunningham Co.
Omaha, Nebraska

Vice-Chairman

A. S. MACDONALD
Strong & Macdonald, Inc.
Tacoma, Washington

National Staff

A. N. CARTER

W. G. DOOLY, Jr.

W. E. DUNN

E. T. KELLY

H. J. KIRK

Highway Contractors' Division

Chairman

P. M. THORNTON
Thornton Construction Co.
Hancock, Michigan

Vice-Chairman

M. CLARE MILLER
San Ore Construction Co.
McPherson, Kansas

B. L. KNOWLES

C. I. MEHL

W. A. SNOW

J. M. SPROUSE

J. B. SWEM

W. E. WOODRUFF

Secretaries' and Managers' Council

Vice-Chairman (Highway and Heavy Chapters)

A. H. HARDING
Manager
Portland Chapter

Vice-Chairman (Building Chapters)

WILLIAM C. BOWDEN
Secretary
Master Builders Association of Allegheny County, Pennsylvania

Secretary

CURTIS BELL
Managing Director
South Texas Chapter

Accident Prevention Committee

Chairman

H. B. ALEXANDER
H. B. Alexander & Son, Inc.
Harrisburg, Pennsylvania

Vice-Chairman

IRA H. HARDIN
Ira H. Hardin Co.
Atlanta, Georgia

W. E. ABBITT
W. A. Abbit Co.
Charleston, W. Virginia

C. B. FORD
Foreum-James Co.
Dyersburg, Tennessee

BEN C. GERWICK
Ben C. Gerwick, Inc.
San Francisco, California

A. T. GLASSETT
W. J. Barney Corp.
New York, New York

W. M. GOLDSTON
The Goldston Co.
Corpus Christi, Texas

CARL E. GOODWIN
Allegan, Michigan

G. O. GRIFFIN
Dravo Corporation
Pittsburgh, Pennsylvania

LYELL HALVERSON
Madsen Construction Co.
Minneapolis, Minn.

ROBERT M. HOOVER
Kansas City Bridge Co.
Kansas City, Missouri

A. L. JACKSON
A. L. Jackson Co.
Chicago, Illinois

IRWIN KAHN
Kahn Construction Co.
Columbia, S. Carolina

FREDERIC G. KRAPF
Wilmington, Delaware

MARSHALL J. WYLIE
Wylie Bros.
Albuquerque, N. Mexico

T. H. YUELL
Diesel Oil Sales Co.
Seattle, Washington

Accident Prevention Endowment Fund

C. P. STREET
McDevitt & Street Co.
Charlotte, North Carolina

ARTHUR S. HORNER
A. S. Horner Construction Co.
Denver, Colorado

GLEN W. MAXON
Maxon Construction Co., Inc.
Dayton, Ohio

Adjustment Committee

ARTHUR S. HORNER
A. S. Horner Construction Co.
Denver, Colorado

FRANK F. BURROWS
Williams & Burrows, Inc.
Burlingame, California

C. W. CUNNINGHAM
Condon-Cunningham Co.
Omaha, Nebraska

JOHN MacLEOD
Macco Corp.
Paramount, California

WILLIAM MUIRHEAD
Wm. Muirhead Construction Co.
Durham, North Carolina

C. P. STREET
McDevitt & Street Co.
Charlotte, North Carolina

P. M. THORNTON
Thornton Construction Co.
Hancock, Michigan

Apprenticeship Committee

Chairman

FREDERIC G. KRAPF
Wilmington, Delaware

JOHN CASSIDY

Seth E. Glem & Associates
Memphis, Tennessee

FRED FISHER

Fisher Construction Co.
Houston, Texas

Vice-Chairman

HAL S. CRAIN
Crain & Denbo, Inc.
Durham, North Carolina

JOHN COOLEY

John Cooley Co.
Detroit, Michigan

H. D. HUMPHRIES

Concrete Builders, Inc.
Atlanta, Georgia

ALVAH LIBBEY

Libbey & Libby
Minneapolis, Minnesota

FRANK F. BURROWS
Williams & Burrows, Inc.
Burlingame, California

D. H. COWDIN

Cowdin Brothers
Dallas, Texas

FRANK M. MCGOWAN

Wm. M. Bailey Co.
Boston, Massachusetts

Contract Forms and Specifications Committee

(Coordinating Committee)

Chairman

GEO. H. ATKINSON
Guy F. Atkinson Co.
So. San Francisco, Calif.

CARL W. OLSON

Olson Construction Co.
Lincoln, Nebraska

HOWARD H. STURDY

Dravo Corporation
Pittsburgh, Pennsylvania

Vice-Chairman

J. A. HENDERSON
United Construction Co.
Winona, Minnesota

B. F. PARROTT

B. F. Parrott & Co.
Roanoke, Virginia

F. B. WINSTON

Winston Brothers Co.
Minneapolis, Minnesota

F. H. CARLSON

Fred Carlson Co.
Decorah, Iowa

JOHN H. SELLEN

John H. Sellen Construction Co.
Seattle, Washington

STANDARD GOVERNMENT CONSTRUCTION CONTRACT

Chairman

J. A. HENDERSON
United Construction Co.
Winona, Minnesota

JAMES W. CAWDREY

Cawdre & Vemo
Seattle, Washington

F. L. SHACKELFORD

Potter & Shackelford Construction Co., Inc.
Greenville, South Carolina

GEO. H. ATKINSON

Guy F. Atkinson Co.
So. San Francisco, California

EDWARD P. COBLENTZ

McLean Contracting Co.
Baltimore, Maryland

BERT O. SUMMERS

Erbentraut & Summers
San Francisco, California

TYREE L. BELL

Austin Road Co.
Dallas, Texas

WALLACE B. CURTIS

Morrison-Knudsen Co.
Boise, Idaho

JOHN T. TESTMAN

Albuquerque, N. Mexico

EDWARD P. COBLENTZ

McLean Contracting Co.
Baltimore, Maryland

W. H. DeBUTTS

C. F. Lytle Co.
Sioux City, Iowa

G. F. WICKES

Wickes Engineering & Construction Co.
Des Moines, Iowa

C. E. COOKE

Cooke Contracting Co.
Detroit, Michigan

PRIVATE ENGINEERING CONTRACT FORMS

Chairman

ROBERT W. LONG
Long Construction Co.
Kansas City, Missouri

WALLACE B. CURTIS

Morrison-Knudsen Co.
Boise, Idaho

MORRIS E. DeWITT

Porter-DeWitt Construction Co.
Poplar Bluff, Missouri

F. S. OLDT

F. S. Oldt Co.
Dallas, Texas

ELLSWORTH APPEL

Conduit Contracting Co., Inc.
St. Louis, Missouri

BEN P. GRIFFITH

Griffith Co.
Los Angeles, California

C. R. RALPH

Kaw Paving Co.
Topeka, Kansas

ALBERT D. BLAKESLEE

C. W. Blakeslee & Sons, Inc.
New Haven, Connecticut

CARL W. OLSON

Olson Construction Co.
Lincoln, Nebraska

LEO P. RICHARDSON

W. E. Wood Co.
Detroit, Michigan

EDWARD P. COBLENTZ

McLean Contracting Co.
Baltimore, Maryland

FRANCIS M. TOMPKINS

Chas. H. Thompson Co.
Washington, D. C.

E. J. WHEELER

Frank Messer & Sons, Inc.
Cincinnati, Ohio

D. B. FEGLES

Fegles Construction Co., Ltd.
Minneapolis, Minnesota

(Task Units)

BUILDING SPECIFICATIONS

Chairman

ROBERT W. LONG
Long Construction Co.
Kansas City, Missouri

E. J. WHEELER
Frank Messer & Sons, Inc.
Cincinnati, Ohio

F. S. OLDT

F. S. Oldt Co.
Dallas, Texas

A. E. BUDELL
Industrial Engineering Co.
New York, New York

(Contract Forms and Specifications Committee continued on next page)

A.G.C. DIRECTORY

(Contract Forms, Specifications Committee—continued)

JAMES W. CAWDREY
Cawdrey & Vemo
Seattle, Washington

M. R. HARRISON, JR.
M. R. Harrison Construction Corp.
Miami, Florida

DONALD E. REED
Stanton-Reed Co.
Los Angeles, California

W. G. WETMORE
Jackson, Mississippi

HIGHWAY SPECIFICATIONS

Chairman

F. H. CARLSON
Fred Carlson Co., Inc.
Decorah, Iowa

B. B. ARMSTRONG
Armstrong & Armstrong
Roswell, New Mexico

JAMES B. KENNEY
James B. Kenney, Inc.
Denver, Colorado

GEORGE C. KOSS
Koss Construction Co.
Des Moines, Iowa

HENRY KUCKENBERG
Kuckenberg Construction Co.
Portland, Oregon

E. W. MENEFE
W. J. Menefee Construction Co.
Sedalia, Missouri

WARDNER SCOTT
W. A. Lynn Construction Co.
Lincoln, Nebraska

WAYNE C. SUTTON
Washington Asphalt Co.
Seattle, Washington

NELLO L. TEER, JR.
Nello L. Teer Co.
Durham, North Carolina

Chairman

J. A. THOMPSON
J. A. Thompson & Son
Inglewood, California

Vice-Chairman

J. RUTLEDGE HILL
Gifford-Hill & Co.
Dallas, Texas

Chairman

MARK K. WILSON, JR.
Mark K. Wilson Co.
Chattanooga, Tennessee

RECLAMATION SPECIFICATIONS

Chairman

WM. H. DEBUTTS
C. F. Lytle Co.
Sioux City, Iowa

WALLACE B. CURTIS
Morrison-Knudsen Co.
Boise, Idaho

J. E. DAVIDSON
Massman Construction Co.
Kansas City, Missouri

MARSHALL B. JONES
Western Contracting Corp.
Sioux City, Iowa

JOHN A. KIER
W. E. Kier Construction Co.
San Diego, California

GEO. C. LOORZ
Stolte, Inc.
Oakland, California

CORPS OF ENGINEERS SPECIFICATIONS

Chairman

J. A. HENDERSON
United Construction Co.
Winona, Minnesota

WM. H. DEBUTTS
C. F. Lytle Co.
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(Market Development Committee continued on next page)

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(A.G.C. Representation with Other Groups—Government—continued)

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To qualify for membership in the association, a general contractor must have been engaged in the business of general contracting for two or more years prior to making application and possess the essential attributes of skill, integrity, and responsibility.

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He must possess the necessary technical knowledge and practical experience, as applied to his particular form or group of undertakings, to enable him to carry them to completion in a workmanlike and economical manner.

INTEGRITY

He must consistently and persistently comply with the spirit as well as the letter of his contracts. He must have business experience and handle every transaction with fairness and honor.

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He must possess cash or credit to meet all his commitments, also the equipment and organization for the satisfactory performance and completion of his undertakings.

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| (c) A.G.C. of Illinois | 323 | (b) New Mexico Building Branch | 345 | (p) West Texas Chapter | 367 |
| (d) Southern Illinois Builders Association | 325 | 31. New York | | 43. Utah | |
| 13. Indiana | | (a) Buffalo Chapter | 345 | (a) Intermountain Branch | 367 |
| (a) Indiana Highway Constructors, Inc. | 325 | (c) Metropolitan Builders Association of New York City | 346 | 44. Vermont | |
| (b) Indiana General Contractors' Association | 326 | (d) New York State Chapter, Inc. | 346 | (See A.G.C. of New Hampshire & Vermont, page 344) | |
| (c) Evansville Chapter | 326 | 32. North Carolina and South Carolina | | 45. Virginia | |
| 14. Iowa | | (a) Carolinas Branch | 347 | (a) Virginia Branch | 368 |
| (a) A.G.C. of Iowa | 327 | 33. North Dakota | | 46. Washington | |
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| (b) Kansas Contractors Association | 329 | (b) Cincinnati Chapter | 351 | (d) Tacoma Chapter | 371 |
| 16. Kentucky | | (c) Cleveland Chapter | 352 | (e) Eastern Washington Builders Chapter | 371 |
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| (b) Louisville Chapter | 331 | (e) Associated Building Contractors of Toledo, Inc. | 353 | (a) The A.G.C. of West Virginia, Inc. | 371 |
| (c) A.G.C. of Western Kentucky | 331 | (f) The Mahoning & Shenango Valley Chapter | 353 | 48. Wisconsin | |
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MEMBERSHIP LISTING

Alphabetical Roster

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- AAA Constr. Co., Spokane, Wash. (46e)
 A & A Asphalt Paving Co., Birmingham, Mich. (21c)
 ABC Constr. Co., Inc., Norwalk, Calif. (4d)
 A & O Bldrs., New Orleans, La. (17a)
 A & W Constr. Co., Glasgow, Mont. (25a)
 Aalco Constr. Co., Evansville, Ind. (13c)
 Aalco Heavy Hauling & Erecting Co., St. Louis, Mo. (24c)
 Abbott, W. A., Co., Charleston, W. Va. (47a)
 Abel Constr. Co., Lincoln, Nebr. (26b)
 Aberthaw Co., Boston, Mass. (20b)
 Abraham, Chas. W., Williams Bay, Wis. (48b)
 Abraham, W. J., & Sons, Inc., Seymour, Ind. (13b)
 Abrams, A. R., Inc., Atlanta, Ga. (10a)
 Abrams Constr. Co., Greensboro, N. C. (32a)
 Abramson, John P., Constr. Co., Des Moines, Iowa (14a) (24b)
 Accione Constr. Co., Philadelphia, Pa. (29a)
 Ace Constr. Co., Seattle, Wash. (46a)
 Ace Excavators, Oakland, Calif. (4b)
 Ace Sand & Gravel Co., Inc., Columbus, Nebr. (26b)
 Aceto, Samuel, & Co., Portland, Me. (18a)
 Acme Constr. Co., Modesto, Calif. (4a)
 Acme Constr. Co., Eugene, Oreg. (36a)
 Acme Constr. Co., Oklahoma City, Okla. (42j)
 Adair, C. A., & Co., Atlanta, Ga. (10a)
 Adams, B. B., Fort Worth, Texas (42c)
 Adams Constr. Co., Minneapolis, Minn. (22a)
 Adams, Geo. B., Bryan, Texas (42f)
 Adams, Jack, Los Alamos, N. Mex. (30a)
 Adams, John, Corpus Christi, Texas (42i)
 Adams, R. N., Kaufman, Texas (42f)
 Adams & Tate Constr. Co., Roanoke, Va. (45a)
 Adams, W. M., & Sons, Burlington, Vt. (28a)
 Adams, Wm. G., & Co., Waco, Texas (42L)
 Addazio Constr. Co., Inc., Long Island, N. Y. (31d)
 Adinolfi, John A., Gary, Ind. (13b)
 Adirondack Construction Corporation, Glens Falls, N. Y. (1L)
 Adler Constr. Co., Rapid City, S. Dak. (5b) (36a)
 Agabiti Bros., Inc., Trenton, N. J. (29a)
 Agnew Constr. Co., Ronceverte, W. Va. (47a)
 Agsten, H. B., Jr., Charleston, W. Va. (47a)
 Agsten, H. B., & Sons, Inc., Charleston, W. Va. (47a)
 Ahern, Wm. S., Constr. Co., Chicago, Ill. (12a)
 Ahlborg, O., & Sons, Inc., Cranston, R. I. (38a)
 Aikin, Lee, Corpus Christi, Texas (42i)
 Ajax Constr. Co., The, Cincinnati, Ohio (34b)
 Akard, W. C., San Francisco, Calif. (4a)
 Akmadzich, P. J., Sunland, Calif. (4d)
 Alamo Constr. Co., Alamo, Tenn. (41c)
 Alberici, J. S., Constr. Co., St. Louis, Mo. (24c)
 Albert Constr. Co., Miami, Fla. (9b)
 Albrecht, Albert A., Co., The, Detroit, Mich. (21a)
 Albrecht, E. J., Co., Chicago, Ill. (12a)
 Al-Co Co., Los Angeles, Calif. (4d)
 Alcott Constr. Co., Sumter, S. C. (32a)
 Alderman Constr. Co., Ottawa, Kans. (15b)
 Aldous & Co., Los Angeles, Calif. (4d)
 Aldrich, W. R., & Co., Baton Rouge, La. (17e)
 Aldridge, R. G., Kansas City, Kans. (15b) (24b)
 Alexander Constr. Co., Atlanta, Ga. (10a)
 Alexander Constr. Co., Minneapolis, Minn. (22a) (33a) (40a)
 Alexander, H. B., & Son, Inc., Harrisburg, Pa. (37a)
 Alexander, John E., Vashon, Wash. (46a)
 Alexander & Repass, Des Moines, Iowa (14a)
 Alger Constr. Co., Lakewood, Colo. (5b)
 Alger-Rau, Inc., Cleveland, Ohio (34c)
 Allaire, P., & Sons, Inc., Bristol, Conn. (6a)
 Allegheny Asphalt & Paving Co., Pittsburgh, Pa. (37c)
 Allegheny Bldg. & Supply Co., Pittsburgh, Pa. (37b)
 Allen Constr. Co., Shreveport, La. (17b)
 Allen, D. F., Henryetta, Okla. (35b)
 Allen, Fred M., San Benito, Texas (42o)
 Allen, G. H., Vincennes, Ind. (13a)
 Allen, H. L., & Sons, Elton, La. (17e)
 Allen, H. R., Co., Beaver, Pa. (37c)
 Allen, O. L., Co., Houston, Texas (42d)
 Allen, R. J., Contr. Co., Birmingham, Ala. (1a)
 Allen, Robt. L., Chattanooga, Tenn. (41a)
 Allen, S. & A., Constr. Co., Boston, Mass. (20b)
 Alley, A. L., & Son, Faribault, Minn. (22a)
 Alley Constr. Co., Inc., Bristol, Tenn. (41e)
 Allhands & Briley, Dallas, Texas (42f)
 Allhands & Swatzell, Inc., Dallas, Texas (42f)
 Alliance Constr. Co., South Pasadena, Calif. (4d)
 Allied Constr. Co., Phoenix, Ariz. (2a)
 Allied Engr. Co., Atlantic, Iowa (14b)
 Allison, H. F., Co., Dallas, Texas (42j)
 Allison & Haney, Albuquerque, N. Mex. (30a)
 Alpine Constr. Co., St. Ignace, Mich. (21c)
 Alport-Carlo Constr. Co., St. Louis, Mo. (24c)
 Alsop, John, Wakefield, Kans. (15b)
 Alstrom Constr. Co., Muskegon Heights, Mich. (21b)
 Altman, J. J., & Co., East St. Louis, Ill. (12d)
 Altoona Constr. Corp., Hollidaysburg, Pa. (37c)
 Alves, Eugene G., Constr. Co., Inc., Pittsburg, Calif. (4b)
 Alward, H. W., Inc., Bernardsville, N. J. (29a) (32a)
 Amaral, M., Petaluma, Calif. (4b)
 Ambrosius Industries, Inc., Louisville, Ky. (16a)
 Amercon Corp., Los Angeles, Calif. (4d)
 American Asphalt Paving Co., Monrovia, Calif. (4d)
 American Constr. Co., Columbia, S. C. (32a)
 American Constr. Co., El Paso, Texas (42b)
 American Constr. Co., Inc., Washington, D. C. (8a)
 American Paving Corp., Newark, N. J. (29a)
 American Pile Driving Co., Inc., Everett, Wash. (46a)
 American Pipe & Constr. Co., Los Angeles, Calif. (4a)
 Ames Constr. Co., The, Hartford, Conn. (6a)
 Ames & Webb, Inc., Norfolk, Va. (32a)
 Amis Constr. Co., Oklahoma City, Okla. (35b)
 Amoroso, S. J., Constr. Co., San Francisco, Calif. (4a)
 Anchor Constr. Co., Muskogee, Okla. (35b)
 Anderberg, O. R., Co., Minneapolis, Minn. (22a)
 Andersen Contr. Co., Des Moines, Iowa (14a)
 Anderson, Allen R., Seattle, Wash. (46b)
 Anderson, B. L., Cedar Rapids, Iowa (14a)
 Anderson-Benson-Montin, Seattle, Wash. (50a)
 Anderson Bridge Constr. Co., Tacoma, Wash. (46d)
 Anderson Bros., Rockford, Ill. (12c)
 Anderson Bros. Corp., Houston, Texas (42m)
 Anderson Constr. Co., Salem, Ill. (42m)
 Anderson Constr. Co., Holton, Kans. (15b)
 Anderson Constr. Co., McAlester, Okla. (35b)
 Anderson Constr. Co., Tacoma, Wash. (46d)
 Anderson Contr. Co., Longmont, Colo. (5b)
 Anderson, F. B., Concord, Calif. (5b)
 Anderson Fairoaks Constr. Co., Hartford, Conn. (6a)
 Anderson-Hall Co., Spokane, Wash. (46e)
 Anderson, J. Emil, & Son, Chicago, Ill. (12a)
 Anderson, J. S., Constr. Co., Spokane, Wash. (46c)
 Anderson, L. C., Co., San Diego, Calif. (4c)
 Anderson, L. C., & Sons, Huntingdon, Pa. (37a)
 Anderson & Loer, Evansville, Ind. (13c)
 Anderson, O. E., San Jose, Calif. (4a)
 Anderson, O. J., & Son, Albert Lea, Minn. (22a)
 Anderson-Oxandale, Holton, Kans. (15b)
 Anderson, P. B., & Co., Inc., Cut Bank, Mont. (25b)
 Anderson, P. J., & Sons, Seattle, Wash. (46a)
 Anderson, Ray, Constr. Co., Ephrata, Wash. (46e)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 267). N—National Member (page 375). L—Local Member.

Anderson & Veatch, Inc., Evansville, Ind. (13c)
 Anderson, W. D., Co., Austin, Texas (42k)
 Andersons', Inc., Charleston, W. Va. (47a)
 Andrew & Dawson, Montgomery, Ala. (1a)
 Andrews-Parker, Inc., Bryan, Texas (42d) (42j)
 Andrus, M. R., Beaumont, Texas (42h)
 Andry & Voss, New Orleans, La. (17a)
 Anglin, Ross, Austin, Texas (42f)
 Angus Coal Mining Co., Oskaloosa, Iowa (14a)
 Ankrom & Castin, Parkersburg, W. Va. (47a)
 Anliker & Robinson, Bend, Oreg. (36a)
 Ann Arbor Constr. Co., Ann Arbor, Mich. (21c)
 Anso Constr. Co., Inc., Long Beach, Calif. (4d)
 Anson-Smith Constr. Co., Marysville, Calif. (4b)
 Apfelbach, Henry J., Mobile, Ala. (1a)
 Arborio, John, Inc., Poughkeepsie, N. Y. (31d)
 Archer Bros., Inc., Atlanta, Ga. (10a)
 Archibald, F. R., Oakland, Calif. (4b)
 Archibald, J. O., Redwood City, Calif. (4b)
 Arco Co., Atlanta, Ga. (10a)
 Arcole Midwest Corp., Evanston, Ill. (12c) (31d)
 Arenz, Theo. & J. M., Portland, Oreg. (36a)
 Argentieri & Colarossi, Seattle, Wash. (46a)
 Argentieri Constr. Co., Providence, R. I. (38a)
 Argo Engr. Co., Alhambra, Calif. (4d)
 Ariss-Knapp Co., Oakland, Calif. (4b)
 Arizona Sand & Rock Co., Phoenix, Ariz. (2a)
 Arkwright, Stanley H., Inc., Billings, Mont. (25a) (49a)
 Armagost, Walter, Constr. Co., Wichita, Kans. (15a)
 Armbrust, E. E., North Little Rock, Ark. (3a)
 Armeo Drainage & Metal Prods., Inc., Middletown, Ohio (34b)
 Armiger Constr. Corp., Baltimore, Md. (19a)
 Armour Excavating, Inc., Philadelphia, Pa. (37e)
 Armiston, W. H., Co., Inc., Dunedin, Fla. (9c)
 Armstrong & Armstrong, Roswell, N. Mex. (30a) (42f)
 Armstrong & Armstrong, Wenatchee, Wash. (46b)
 Armstrong Constr. Co., Kingsport, Tenn. (41e)
 Armstrong, J. D., Co., Inc., Ames, Iowa (14a)
 Armstrong, J. R., El Cerrito, Calif. (4b)
 Arney, Arthur J., Pine Bluff, Ark. (3a)
 Arnold Constr. Co., Palm Beach, Fla. (9e)
 Arnold, L. G., Inc., Eau Claire, Wis. (48b)
 Arnold, Lewis W., Mexico, Mo. (24b)
 Arnolt Bros., Inc., N. Plainfield, N. J. (29a)
 Arras, Adam, & Son, San Francisco, Calif. (4a)
 Arrington Constr. Co., Idaho Falls, Idaho (11a)
 Arrow Petroleum Co., Chicago, Ill. (12c)
 Arthur & Allen, Pueblo, Colo. (5b)
 Arthur Bros., Kingsville, Texas (42i)
 Artley Co., Savannah, Ga. (10a)
 Artukovich, John A. & Sons, Inc., Paramount, Calif. (4d)

Artukovich, Jerry, Montebello, Calif. (4d)
 Artukovich, N. A., Constr. Co., Montebello, Calif. (4d)
 Artukovich, Vido, Co., Arcadia, Calif. (4d)
 Arute Bros., Inc., New Britain, Conn. (31d)
 Arzani, Victor C., Contr. Co., Syracuse, N. Y. (31d)
 Ashbach, Otto B., & Sons, Inc., St. Paul, Minn. (22a)
 Ashby & Opperman, Bakersfield, Calif. (4d)
 Asheville Paving Co., Asheville, N. C. (32a)
 Ashton Bldg. Co., Tucson, Ariz. (2a)
 Ashworth & Son Co., Minneapolis, Minn. (22a)
 Askins, C. B., Lake City, S. C. (32a)
 Aslett Constr. Co., Twin Falls, Idaho (11a)
 Asphalt Paving Co., Klamath Falls, Oreg. (36a)
 Asphalt Paving Co., Not Inc., Coral Gables, Fla. (9b)
 Asphalt Paving & Constr. Co., Inc., Boise, Idaho (11a)
 Asphalt Paving & Engr. Co., Tacoma, Wash. (46d)
 Asphalt Paving Materials Co., Los Angeles, Calif. (4d)
 Asphalt Paving & Supply Co., Norristown, Pa. (37e)
 Asphalt Prods. Co., Martinsburg, W. Va. (47a)
 Asphalt Roadways Co., Buffalo, N. Y. (31d)
 Asphalt Surfacing Co., Indianapolis, Ind. (13a)
 Asplund Constr. Co., Enid, Okla. (15b) (42j)
 Asselyn, Ernest J., Portland, Me. (18a)
 Assenmacher Constr. Co., Lincoln, Nebr. (26a)
 Associated Bldrs., Inc., The, Anderson, Ind. (13b)
 Associated Constr. Co., Phoenix, Ariz. (2a)
 Associated Constr. Co., The, Hartford, Conn. (6a)
 Associated Engrs., Palo Alto, Calif. (4b)
 Associated Pipeline, Inc., Colma, Calif. (4b)
 Associated Pipe Line Contrs., Inc., Houston, Texas (42m)
 Associated Sand & Gravel Co., Everett, Wash. (46a)
 Asta Constr. Co., Rio Vista, Calif. (4b)
 Atchison, R. R., Co., The, Englewood, Colo. (5b)
 Atherton Constr. Co., Seattle, Wash. (46b)
 Atkin-Fordon Co., Detroit, Mich. (21a)
 Atkinson, C. H., Paving Co., Chillicothe, Mo. (15b) (24b)
 Atkinson, Guy F., Co., South San Francisco, & Long Beach, Calif.; Portland, Oreg.; Denver, Colo.; Seattle, Wash. (N) (4b) (4d) (5b) (36a) (46a) (46c) (46d)
 Atlantic Bitulithic Co., Richmond, Va. (32a)
 Atlantic Bldg. Co., Inc., Charlotte, N. C. (32a)
 Atlantic Bldg. Corp., Columbia, S. C. (32a)
 Atlanta Constr. Co., Houston, Texas (42d)
 Atlantic Constr. Co., Inc., Des Moines, Iowa (14a)
 Atlantic County Constr. Co., Atlantic City, N. J. (29a)
 Atlas Constr. Co., Inc., Vidalia, La. (23a)
 Atlewed, F. C., St. Clair, Mich. (21c)
 Auch, Geo. W., Co., Detroit, Mich. (21a)

Auchter, Geo. D., Co., The, Jacksonville, Fla. (9a)
 Audish, I. G., Constr. Co., Houston, Texas (42d)
 Austin Bridge Co., Dallas, Texas (17e) (42f)
 Austin Contr. Co., Dallas, Texas (35b) (42f)
 Austin, E. E., & Son, Erie, Pa. (37a)
 Austin Road Co., Dallas, Texas (42f)
 Austin, Robt. W., Seattle, Wash. (46a)
 Avery Constr. Co., Inc., Washington, D. C. (8a)
 Avery Lumber Co., Inc., Sumter, S. C. (32a)
 Ayers-Hagan-Booth, Inc., Providence, R. I. (38a)
 Ayling Asphalt & Paving Co., Adrian, Mich. (21c)

B

B.C.D. Constr. Co., Ballinger, Texas (42p)
 B & D Constr. Co., Salina, Kans. (15b)
 B. D. & W., Inc., Grantville, Pa. (37a)
 B. & M. Constr. Co., Meridian, Miss. (23d)
 B & M Constr. Corp., Oklahoma City, Okla. (42j)
 BMFP Constr. Co., Lubbock, Texas (42p)
 B & Q Constr. Co., New Orleans, La. (17a)
 B. & R. Constr. Co., San Francisco, Calif. (4a)
 Baab Constr. Co., Greeley, Colo. (5b)
 Babbitt Constr. Co., Inc., Boise, Idaho (11a)
 Babcock, W. C., Constr. Co., Rensselaer, Ind. (13a)
 Babler Bros., Portland, Oreg. (36a)
 Bacaloff, J., Co., Portland, Oreg. (36a)
 Bacco Constr. Co., Iron Mountain, Mich. (21c)
 Bachner, John G., Anchorage, Alaska (50a)
 Bader, J. A., II, Wilmington, Del. (7a)
 Bader, J. A., & Co., Inc., Wilmington, Del. (7a)
 Badraun, J. J., Seattle, Wash. & Valdez, Alaska (46a) (50a)
 Baebler-Rahn Contr. Co., St. Louis, Mo. (24c)
 Baer, Paul M., & Son, Bell Gardens, Calif. (4d)
 Bagwell, C. R., El Paso, Texas (42b)
 Bahen, Jos. B., Constr. Co., Inc., Washington, D. C. (8a)
 Bahr Constr. Co., Manitowoc, Wis. (48b)
 Bahre, Geo., Co., Indianapolis, Ind. (13b)
 Bail, C. R., Harrison, Mont. (25a)
 Bailev-Brazell Constr. Co., Inc., Greenville, S. C. (32a)
 Bailey, Jay, Constr. Co., Woodland, Calif. (4b)
 Bailey, Wm. M., Co., Boston, Mass. (20b)
 Bair, Roy L., & Co., Spokane, Wash. (46c) (46e)
 Baker & Coombs, Inc., Morgantown, W. Va. (47a)
 Baker, E. D., Borger, Texas (42g)
 Baker, Earl W., Co., Oklahoma City, Okla. (42j)
 Baker, G. W., Holton, Kans. (15b)
 Baker & Hickey Co., The, Columbus, Ohio (34d)
 Baker-Mitchell-Thwing Co., San Bernardino, Calif. (4d)
 Baker, Myron, Gilmore City, Iowa (14a)
 Baker, Roy, Ozawkie, Kans. (15b)

A.G.C. DIRECTORY

- Baker, W. E., Constr., West Durham, N. C. (32a)
 Baker, W. E., & Son, Whitmire, S. C. (32a)
 Baker, Wm. D., Co., Philadelphia, Pa. (37d)
 Bakers Beach Bldrs., San Francisco, Calif. (4a)
 Baldwin Co., The, Little Rock, Ark. (3a)
 Baldwin Constr. Co., Inc., San Rafael, Calif. (4b)
 Baldwin, L. E., Inc., Seattle, Wash. (46b) (50a)
 Baldwin, Phill B., Little Rock, Ark. (3a)
 Balfanz Constr. Co., Abilene, Texas (42p)
 Ball, Lee A., Constr. Co., Springfield, Mo. (24b)
 Ball, N. M., Sons, Berkeley, Calif. (4b)
 Ball, R. F., Constr. Co., Inc., Houston, Texas (42d)
 Ball & Simpson, Berkeley, Calif. (4b) (4d)
 Ball, Stanley, Alhambra, Calif. (4d)
 Ballenger Paving Co., Greenville, S. C. (32a)
 Ballinger, R. C., Co., Narberth, Pa. (37d)
 Ballou Constr. Co., Lumberton, N. C. (32a)
 Ballou, R. R., Constr. Co., Salina, Kans. (15b)
 Baltes, A. J., Inc., Norwalk, Ohio (34d)
 Baltimore Contrs., Baltimore, Md. (19a)
 Bancheri, Chas., Hammonton, N. J. (29a)
 Baner Co., Inc., The, El Paso, Texas (42b)
 Bank Bldg. & Equip. Corp of America, St. Louis, Mo. & Washington, D. C. (8a) (24c)
 Banta Constr. Co., Harper, Kans. & Oklahoma City, Okla. (15b) (35b)
 Barbarossa & Sons, Inc., St. Cloud, Minn. (22a)
 Barber Bros., Fort Smith, Ark. (35b)
 Barber Bros. Co., Baton Rouge, La. (17c)
 Barber, E. E., Constr. Co., Ft. Smith, Ark. (35b)
 Barber Paving Co., The, Chicago, Ill. (12c)
 Barber, Walter H., La Mesa, Calif. (4c)
 Barlettini, E., San Francisco, Calif. (4b)
 Barbour & Short, Norman, Okla. (35a)
 Barcus, L. G., & Sons, Inc., Kansas City, Kans. (15b)
 Bardell, Robt., Oakland, Calif. (4a)
 Barge-Thompson Co., Atlanta, Ga. (9b) (10a) (32a)
 Barger, Chas. W., Jr., Lexington, Va. (45a)
 Barger Constr. Co., Inc., Mooresville, N. C. (32a)
 Barker, Ellis W., Co., Salt Lake City, Utah (43a)
 Barker-Rose Constr. Co., Marshalltown, Iowa (14a)
 Barker, Walter H., Inc., Taunton, Mass. (20b)
 Barksdale & LeBlanc, Baton Rouge, La. (17d)
 Barley, J. R., Mayfield, Ky. (16c)
 Barling, W. E., Inc., Meeteetse, Wyo. (49a)
 Barmac Constr. Co., Inc., Chester, Ill. (12d)
 Barnes, A. T., Constr. Co., Cass City, Mich. (21c)
 Barnes Constr. Co., Grand Rapids, Mich. (21b)
 Barnes, H. D., Inc., Greensboro, N. C. (32c)
 Barnes, Jas. L., Constr. Co., Logansport, Ind. & Santa Monica, Calif. (4d) (13b)
 Barnes, Jos. L., Constr. Co., San Francisco, Calif. (4a)
 Barnes, W. L., Austin, Texas (42f)
 Barnes, W. M., Co., Los Angeles, Calif. (4d)
 Barney, L. P., Constr. Co., Helena, Mont. (25b)
 Barney, W. J., Corp., New York City, Pittsburgh, Pa. & Groton, Conn. (6a) (31c) (37b)
 Barnhart & Wheeler, Pocatello, Idaho (11a)
 Barnhill & Long, Inc., Tarboro, N. C. (32a)
 Barr, G. W., Constr. Co., Tacoma, Wash. (46d)
 Barr, Gleason & Barr, Inc., New York City (31c)
 Barrett, Albert E., Trenton, N. J. (29a)
 Barrett & Hilp, San Francisco, Calif. & Springfield, Va. (4a) (8a)
 Barrett, J. S., Newport Beach, Calif. (4d)
 Barrow & Shaffer Constr. Co., Everett, Wash. (46b)
 Barrus Constr. Co., Kinston, N. C. (32a)
 Bartholomew, B. W., Charlotte, N. C. (32a)
 Bartholomew Constr. Co., Dallas, Texas (42j)
 Bartholow, W. E., & Son Constr. Co., Huron, S. Dak. (40a)
 Bartlett-Brainard Co., Hartford, Conn. (6a)
 Bartley & Binnings, New Orleans, La. (17a)
 Barton-Malow Co., Detroit, Mich. (21a)
 Bartram, Wilmer W., Grandview, Wash. (46b)
 Baruch Corp., Los Angeles, Calif. (4d)
 Basanda Constr. Co., Oklahoma City, Okla. (35a)
 Basich Bros. Constr. Co., Garvey, Calif. (4d)
 Baskerville Bldrs., Knoxville, Tenn. (41b)
 Bass, D. C., & Sons Constr. Co., Enid, Okla. (35a)
 Bass Engr. & Constr. Co., Birmingham, Mich. (21a)
 Bass, G. E., & Co., Jackson, Miss. (23b)
 Bass, Jos. A., & Co., Minneapolis, Minn. (22a)
 Bate, Thos., & Sons, Inc., Houston, Texas, & Denver, Colo. (5a) (42d) (42j)
 Bateman, J. C., Inc., San Jose, Calif. (4b)
 Bates & Rogers Construction Corporation, Chicago, Ill. & San Francisco, Calif. (N) (4b) (12c) (31d) (37c)
 Bateson, J. W., Co., Inc., Dallas, Texas (42a)
 Baton Constr. Corp., Philadelphia, Pa. (37d)
 Batson-Cook Co., Inc., West Point, Ga. (10a)
 Bauer Bros. Constr. & Supply Co., Belleville, Ill. & Evansville, Ind. (12d) (13c)
 Bauer, Martin L., Construction Company, Middletown, Ohio (1)
 Bauer Schoeneck Constr. Co., Milwaukee, Wis. (48a)
 Baugh Co., The, Seattle, Wash. (46b)
 Baugh & Scott, San Antonio, Texas (42c)
 Baughan Constr. Co., Inc., Luray, Va. (45a)
 Baughman, H. L., Inc., Rochester, N. Y. (31d)
 Baughman, Roy, Oklahoma City, Okla. (35b)
 Baulne, Frank, Yardley, Wash. (46c)
 Baumann, Geo. E., Nevada, Mo. (15a)
 Baumeister, Wm., Constr. Co., St. Paul, Minn. (22a)
 Baun Constr. Co., Fresno, Calif. (4b)
 Baxter Constr. Co., Houston, Texas (42d)
 Baxter, Don, Sicily Island, La. (17g)
 Bay Constr., Inc., Seattle, Wash. (46a)
 Bay State Dredg. & Contr. Co., East Boston, Mass. (20a)
 Baya, Harry, Constr. Co., Inc., Tampa, Fla. (9c)
 Bays Mountain Constr. Co., Kingsport, Tenn. (41c)
 Beacon Constr. Co., Allston, Mass. (20b)
 Beall, I. G., Phoenix, Ariz. (2a)
 Beals, A. C., Co., Providence, R. I. (38a)
 Bear Bros., Inc., Montgomery, Ala. (1a)
 Beattie Corp., The, Fall River, Mass. (20a)
 Beauchamp, Victor R., Inc., Washington, D. C. (8a)
 Beaumont Constr. Co., Beaumont, Texas (42h)
 Beaver Asphalt Paving & Constr. Co., New Brighton, Pa. (37c)
 Bechtel Corp., Tempe, Ariz. (2a)
 Bechtel Corp., San Francisco & Los Angeles, Calif. (2a) (4b) (4d) (42m)
 Beck, Henry C., Co., Atlanta, Ga. & Dallas, Texas (10a) (42a)
 Beck, O. J., & Sons, Corpus Christi, Texas (42i)
 Beckenhauer Bros., Norfolk, Nebr. (26a)
 Becker Constr. Co., Newark, N. J. (1)
 Becker, Peter, Calumet City, Ill. (13b)
 Becker, Roland H., Inc., Milwaukee, Wis. (48a)
 Beckering Constr. Co., Grand Rapids, Mich. (21b)
 Beckett & Federighi, Oakland, Calif. (4a)
 Beckham, E. M., Constr. Co., Perry, Ga. (10a)
 Beckman, J. H., Constr. Co., Sioux Falls, S. Dak. (40a)
 Becksmith Engr. Co., Pittsburgh, Pa. (37c)
 Bedders, Wm. E., Brookline, N. H. (28a)
 Beebe, Del R., Constr. Co., Hawthorne, Nev. (36a)
 Beebe, John C., Grand Forks, N. Dak. (33a)
 Beeler & Higgs, Jacksonville, Fla. (9a)
 Beerman & Jones, Sonora, Calif. (4b)
 Beers Constr. Co., Atlanta, Ga. (10a)
 Beggs, W. C., Los Angeles, Calif. (4d)
 Behrens Constr. Co., Beatrice, Nebr. (26b)
 Belcher Oil Co., Miami, Fla. (9b)
 Bell, Braden, Barker & Gilvin, Inc., Amarillo, Texas (42f)
 Bellardino, John, Inc., Seneca Falls, N. Y. (31d)
 Bellevue Constr. Co., Bellevue, Wash. (46a)
 Bellows, W. S., Constr. Corp., Houston, Texas (42d)
 Ben Constr. Co., Pittsburgh, Pa. (37c)
 Benderoff, V. C., Des Moines, Iowa (14a)
 Benfield, Harry R., Four Oaks, N. C. (32a)
 Bengel, A. M., Spokane, Wash. (46c)
 Ben Hur Constr. Co., St. Louis, Mo. (24c)
 Benike, Alvin E., Rochester, Minn. (22a)
 Bennett, C. T., Constr. Co., Kings Mountain, N. C. (32a)
 Bennett-Campbell, Inc., Seattle, Wash. (46b)
 Bennett Constr. Co., Topeka, Kans. (15a) (15b)
 Bennett Constr. Co., Kansas City, Mo. (24a)
 Bennett, Geo., Constr. Co., Kansas City, Kans. (15b) (24b)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 267). N—National Member (page 375). L—Local Member.

- Bennett, Jos. E., Co., Inc., Brookline Village, Mass. (20b)
 Bennett, W. H., Constr. Co., Kansas City, Kans. (15b)
 Bennett, W. H., & Reece Constr. Co., Kansas City, Kans. (24b)
 Benson Co., The, Houston, Texas (42d)
 Benson-Montin, Inc., Seattle, Wash. (46a)
 Benson, Roy, & Son, Stephen, Minn. (22a)
 Bentley, A., & Sons Co., The, Toledo, Ohio (34c)
 Bentley Constr. Co., Milwaukee, Wis. (48a)
 Bentley, Thos. H., & Son, Inc., Milwaukee, Wis. (48a)
 Bentson Contr. Co., Phoenix, Ariz. (2a)
 Benz, Dale, Inc., Phoenix, Ariz. (2a)
 Benzing, A., & Sons, Hamilton, Ohio (L)
 Berenz & Son Asphalt Co., Bloomington, Ill. (12c)
 Berg, Chris, Inc., & Assoc., Fairbanks, Alaska (50a)
 Berg Constr. Co., Inc., Juneau, Alaska (50a)
 Bergesen, Sam, Tacoma, Wash. (46d)
 Berggren, Harry F., & Sons, Inc., Scottsbluff, Nebr. (26b)
 Berkebile Bros., Johnstown, Pa. (37a)
 Berkebile, J. H., & Sons, Toledo, Ohio (34c)
 Birmingham, J. W., Constr. Co., Inc., Corpus Christi, Texas (42i)
 Bernard & Byrd, Mobile, Ala. (1a)
 Berns Constr. Co., Indianapolis, Ind. (13a)
 Bero Engr. & Constr. Corp., Buffalo, N. Y. (31d)
 Berry, C. B., Denver, Colo. (5b)
 Bertelsen Constr. Co., Houston, Texas (42d)
 Best, Glenn R., Constr. Co., Longmont, Colo. (26a)
 Betpouey, Clement, Jr. & Co., New Orleans, La. (17a)
 Bettancourt, Jos., San Bruno, Calif. (4a)
 Betts & Beer Constr. Co., Adair, Iowa (14b)
 Beu & Sons Co., Grundy Center, Iowa (14a)
 Bey Constr. Co., Cedar Rapids, Iowa (14b)
 Beyer & Abrahamson, Los Angeles, Calif. (4d)
 Bianchi, Carlo, and Company, Inc., Framingham, Mass. (L)
 Bianchi, Geo. J., San Jose, Calif. (4a)
 Biba, W. A., Engr. Co., Geneva, Nebr. (26b)
 Bickel, Henry, Co., Inc., Louisville, Ky. (16b)
 Bickhard Constr. Co., Denver, Colo. (5a)
 Biesinger, Geo. L., & Son, Salt Lake City, Utah (43a)
 Big Horn Constr. Co., Sheridan, Wyo. (49a)
 Bigan, M. H., Windber, Pa. (31d)
 Bigge Crane & Rigging Co., Oakland, Calif. (4b)
 Bigler & Bigler, Corpus Christi, Texas (42i)
 Biles, J. B., Constr. Co., McAlester, Okla. (35b)
 Bilhorn, Bower & Peters, Inc., Clayton, Mo. (24b)
 Billings Constr. Co., Billings, Mont. (25a)
 Bingham Constr. Co., Sacramento, Calif. (4a)
 Binghamton Constr. Co., Inc., Binghamton, N. Y. (31d)
 Birch, S., & Sons Constr. Co., Great Falls, Mont., Fargo, N. Dak. & Seattle, Wash. (25a) (33a) (46a) (49a) (50a)
 Birchard & Roberts, Dearborn, Mich. (21a)
 Birchby & Nauman, Inc., Denver, Colo. (5b)
 Birdsall, John H., Jr., Palm Beach, Fla. (9c)
 Birkemeier & Saremal, Portland, Oreg. (36a)
 Birmingham Constr. Co., Birmingham, Mich. (21a)
 Bishop, Younger, Bradley Co., San Francisco, Calif. (4a)
 Bisson, W. M., & Son, Laconia, N. H. (28a)
 Bituminous Fuel & Oil Co., East St. Louis, Ill. (12c)
 Biwabik Gravel Co., Inc., Virginia, Minn. (22a)
 Black Hills Constrs., Inc., Rapid City, S. Dak. (49a)
 Black, J. J., & Co., Atlanta, Ga. (10a)
 Black, Ray, & Son, Paducah, Ky. (16c)
 Blackburn, W. H., Constr. Co., Oklahoma City, Okla. (35b)
 Black, Robt. A., Inc., Chicago, Ill. (12c)
 Black Top Paving Co., Washington, Pa. (37c)
 Blacktop Constr. Co., Emporia, Kans. (15b)
 Blackwell Engr. Co., Warrenton, Va. (45a)
 Blades, A. L., & Sons, Hornell, N. Y. (31d)
 Blaha, J. N., & Sons, Cleveland, Ohio (34c)
 Blahnik & Berger, Cedar Rapids, Iowa (14b)
 Blair Bros. Constr. Co., Quinter, Kans. (15b)
 Blakemore, John F., El Monte, Calif. (4d)
 Blakeslee, C. W., & Sons, Inc., New Haven, Conn. (6a)
 Blakeslee Rollins Corp., Boston, Mass. (20a)
 Blakeslee-Spiering Co., Arcata, Calif. (4b)
 Blanchard, G. E., Derby, Colo. (5b)
 Blanchard-Hall Constr. Co., Pensacola, Fla. (9d)
 Blanchard, Wm. L., Co., Newark, N. J. (L)
 Bland, Joe, Constr. Co., Austin, Texas (42j)
 Blankenship Bros., Charlotte, N. C. (32a)
 Blanks, H. B., Constr. Co., Vidalia, La. (23a)
 Blann-Lane Constr. Co., Tampa, Fla. (9c)
 Blaser, Frank E., Bldg. Co., Wichita, Kans. (15a)
 Blattner, D. H., & Sons, Albany, Minn. (22a)
 Blauner Constr. Co., Chicago, Ill. (12a)
 Blaw-Knox Co., Chemical Plants Div., Pittsburgh, Pa. (4d) (42d)
 Bles & Muns Constr. Co., McLean, Va. (45a)
 Blomquist Oil Service, Inc., Redwood City, Calif. (4b)
 Bloom, Dale, Overbrook, Kans. (15b)
 Blount Bros. Constr. Co., Montgomery, Ala. (17a)
 Blue River Sand & Gravel Co., Irving, Kans. (15b)
 Blue, W. A., Constr. Co., St. Louis, Mo. (24c)
 Blue Water Excavating Co., Port Huron, Mich. (21c)
 Bluestein Constr. Co., New Orleans, La. (17a)
 Blum, Frank L., & Co., Winston-Salem, N. C. (32a)
 Blunk, J. C., Constr. Co., Ottumwa, Iowa (14a)
 Blythe Bros. Co., Charlotte, N. C. (32a)
 Blythe & Isenhour, Charlotte, N. C. (32a)
 Boatright-Smith, Rawlins, Wyo. (49a)
 Bobo, Fabian, Novato, Calif. (4b)
 Bock Co., Los Angeles, Calif. (4d)
 Bock Constr. Co., Inc., Dallas, Texas (42a)
 Boehme Constr. Co., Enid, Okla. (35a)
 Boen-Koon Constr. Co., Seattle, Wash. (46b)
 Boen-Sealand Constrs., Seattle, Wash. (50a)
 Boespflug, J. C., Constr. Co., Billings, Mont., Los Angeles, Calif. & Seattle, Wash. (4d) (25a) (25b) (46a) (46b) (50a)
 Boh Bros. Constr. Co., New Orleans, La. (17a)
 Bokser, Lewis, Philadelphia, Pa. (37c)
 Bolander, Carl, & Sons Co., Minneapolis, Minn. (22a)
 Bolduc, L. H., & Co., Minneapolis, Minn. (22a)
 Bollinger Bros., Lumberton, N. C. (32a)
 Bollinger, J. J., Constr. Co., Oklahoma City, Okla. (35a)
 Bolton-Pratt Co., The, Cleveland, Ohio (34c)
 Bona Fide Bldrs., Inc., Tacoma, Wash. (46d)
 Bond Bros., Inc., Everett, Mass. (20b)
 Bond, E. Lee, Contractor, Inc., Houston, Texas (42d)
 Bond & Sheehan, Cincinnati, Ohio (34b)
 Bondgard Constr. Co., Racine, Wis. (48b)
 Bonesteel & Hyde, Pierre, S. Dak. (40a)
 Bong, Clifford C., & Co., Arcadia, Calif. (4d)
 Bonnell Constr. Co., Tacoma, Wash. (46d)
 Bontrager Constr. Co., Elkhart, Ind. (13a)
 Bonvicini Bldg. Co., Torrington, Conn. (6a)
 Boone Contr. Co., Nashville, Tenn. (41d)
 Boone, S. J., Owensboro, Ky. (16a)
 Booth & Flinn Co., Pittsburgh, Pa. (37c)
 Booth & Olson, Inc., Sioux City, Iowa (14a)
 Boquet Constr. Co., Inc., Pittsburgh, Pa. (37c)
 Borchman, A., Sons, Omaha, Nebr. (26a)
 Borden, Val, Constr. Co., Salina, Kans. (15a)
 Bormolini, Louis, & Son, Novato, Calif. (4b)
 Bornstein, Ale, Inc., Louisville, Ky. (16b)
 Boschma, R. D., Co., Ortonville, Mich. (21a)
 Bosso & Ritchie, Inc., Ravenswood, W. Va. (47a)
 Bossi Constr., Inc., Boston, Mass. (20b)
 Bost, P. M., Mobile, Ala. (1a)
 Bostic, A. A., & D. M., Rupert, W. Va. (47a)
 Boswell, Robt. L., Sioux City, Iowa (14a)
 Bott, C. N., New Orleans, La. (17a)
 Bottini, Mario, San Rafael, Calif. (4b)
 Boudwin, Walker, Constr. Co., Reno, Nev. (27a)
 Bouille Constr. Co., Houston, Texas (42d)
 Bouten, Gus J., Constr. Co., Spokane, Wash. (46c)
 Bowen Baggett Co., Quincy, Fla. (9d)
 Bowen, R. A., Constr. Co., Macon, Ga. (10a)
 Bowerman Bros., Providence, R. I. (38a)
 Bowerman Bros., Berryville, Va. (45a)
 Bowers Bldg. & Constr. Co., Salt Lake City, Utah (43a)
 Bowers & Chilton, Inc., Charleston, W. Va. (47a)
 Bowers Constr. Co., Raleigh, N. C. (32a)
 Bowers Constr. Co., Inc., Topeka, Kans. (15a)
 Bowles, E. G., Richmond, Va. (45a)
 Bowman Constr. Co., Inc., Marion, Ind. (13b)
 Boyajohn, Haig M., & Assoc., Inc., Columbus, Ohio (34b)
 Boyce Co., Clearwater, Fla. (9c)
 Boyd & Goforth, Inc., Charlotte, N. C. (32a)
 Boyd, H. R., Co., Inc., Dearborn, Mich. (21c)
 Boyd, J. O., Constr. Co., Dallas, Texas (42a)
 Boyer, John E., Washington, Pa. (37c)
 Boyette, M. E., Constr. Co., Kensett, Iowa (14a)
 Boyle Constr. Co., Sumter, S. C. (23a) (32a)
 Boyle, M. J., & Co., Chicago, Ill. (12a)
 Brabham, V. Lyn, Florence, S. C. (32a)

A.G.C. DIRECTORY

- Bradbury, O. G., Albuquerque, N. Mex. (30b)
- Bradbury, P. A., Constr. Co., Aberdeen, S. Dak. (22a) (33a) (40a)
- Braden Constr. Co., Grissold, Iowa (14a)
- Bradfield, J. P., Columbus, Ga. (10a)
- Bradley & Dysart, Phoenix, Ariz. (2a)
- Bradshaw, L. S., & Sons, Salisbury, N. C. (32a)
- Brady Constr. Co., Seattle, Wash. (46a)
- Brady, E. P., & Co., Flint, Mich. (21c)
- Brady, Geo. J., Co., Inc., Hamden, Conn. (6a)
- Brady, John T., & Co., Inc., New York City (31c)
- Bragato Paving Co., Belmont, Calif. (4b)
- Bralei Homes, Inc., North Little Rock, Ark. (3a)
- Brandt Bros. & Co., Indianapolis, Ind. (13b)
- Brann & Stuart Co., Philadelphia, Pa. (29a)
- Branton Co., Little Rock, Ark. (3a)
- Brasclon Constr. Co., Corpus Christi, Texas (42i)
- Brasfield, Thos. C., Birmingham, Ala. (1a)
- Bratthauer-Walker Co., North Miami, Fla. (9b)
- Braun, C. F., & Co., Alhambra, Calif. (4d)
- Braun, Carl, & Son, Jackson, Mich. (21b)
- Bray, Edw. E., Co., Inc., Bridgeport, Conn. (6a)
- Bray, J. N., Co., Valdosta, Ga. (10a)
- Brayman Constr. Co., Pittsburgh, Pa. (37c)
- Breazier Constr. Co., Seattle, Wash. (46b)
- Breen, J. P., Sacramento, Calif. (4b)
- Breiholz, W. H., Des Moines, Iowa (14b)
- Bremer, C. C., & Co., Niagara Falls, N. Y. (31a)
- Brennan, J. W., Pocatello, Idaho (11a)
- Brennan, Thos. P., Inc., Dallas, Texas (42a)
- Brenner Constr. Co., Inc., Wichita, Kans. (15a)
- Breslin Constr. Co., Inc., Louisville, Ky. (16a)
- Bressi & Bevanda Constrs., Inc., North Hollywood, Calif. (4b) (4d)
- Brewer & Brewer Sons, Inc., Chillicothe, Ohio (34d)
- Brewer Co., Madeira, Ohio (34b)
- Brewer Co. of Florida, Inc., The, Miami, Fla. (9b)
- Brewer & McMichael, Inc., Holdenville, Okla. (35b)
- Brewer, N. E., Co., Winston-Salem, N. C. (32a)
- Brewton, Howard, Portland, Oreg. (36b)
- Brezina Construction Company, Inc., Rapid City, S. Dak. & Anchorage, Alaska (L) (50a)
- Brezner, Barnett, Alexandria, La. (17f)
- Brice Bldg. Co., Inc., Birmingham, Ala. (1a) (17a)
- Bride & Didier, Sioux City, Iowa (14b)
- Bridges Constr. Co., San Jose, Calif. (4a)
- Bridges, E. C., Heath Springs, S. C. (32a)
- Bridges Paving Co., St. Louis, Mo. (12c) (24b) (24c)
- Brien Bldg. Co., Inc., Woonsocket, R. I. (38a)
- Briggs, A. R., Constr. Co., Macon, Ga. (10a)
- Briggs Constr. Co., Tacoma, Wash. (46d)
- Briggs, R. W., & Co., San Antonio, Texas (42f)
- Brighton Sand & Gravel Co., Sacramento, Calif. (4b)
- Brighton & Wing, Birmingham, Mich. (21c)
- Brinkley, E. P., Raleigh, N. C. (32a)
- Brinkley, John H., Thomasville, N. C. (32a)
- Brinkley, W. F., & Son Constr. Co., Inc., Granite Quarry, N. C. (32a)
- Briscoe, Frank, Co., Inc., Newark, N. J. (L)
- Briscoe, J., Stillwater, Okla. (35b)
- Brissey Lumber Co., The, Anderson, S. C. (32a)
- Brittain & Gibbins, Fort Worth, Texas (42f)
- Brittain, T. C., Co., Decatur, Ga. (10a)
- Britton Bros. Constr. Co., Fort Worth, Texas (42m)
- Britton Constr. Co., Inc., Washington, Pa. (42m)
- Broad, John, Constr. Co., Austin, Texas (42k)
- Broce Constr. Co., Woodward, Okla. & Dodge City, Kans. (15b) (35b)
- Broce & Smith, Inc., Larned, Kans. (15b)
- Brock, M. J., & Sons, Inc., Los Angeles, Calif. (4d)
- Brockhaus, Ed, Shreveport, La. (17b)
- Brockmeyer Constr. Co., St. Louis, Mo. (24c)
- Brockob, R. L., Constr. Co., Chicago, Ill. (12a)
- Brodie Constr. Co., Amarillo, Texas (42m)
- Brogan Constr. Co., Des Moines, Iowa (14a)
- Brommer, O. G., Belleville, Kans. (15b)
- Brookfield Constr. Co., Inc., New York, N. Y. (29a)
- Brooklawn Constr. Co., The, Hartford, Conn. (6a)
- Brooklyn Engr. Corp., Baltimore, Md. (19a)
- Brooks Constr. Co., Ft. Wayne, Ind. (13a)
- Brooks Constr. Co., Kahoka, Mo. (24b)
- Brooks, Larry T., Tulsa, Okla. (35a)
- Brooks Paving Co., Miami, Fla. (9b)
- Brose Constr. Co., Cincinnati, Ohio (34b)
- Brosnahan, Earl F., Kansas City, Mo. (15b)
- Brosnahan, Emmet, Constr. Co., Harrisonville, Mo. (24b)
- Brosz, Paul, & Sons, Inc., Philadelphia, Pa. (37d)
- Brotemarkle, S. T., Constr. Co., Cumberland, Md. (37c)
- Brotherton, Fred J., Inc., Hackensack, N. J. (L)
- Broughton, O. J., Dallas, Texas (42j)
- Broussard, A. B., & Sons, Inc., Baton Rouge, La. (17d)
- Browder, Earl T., Inc., St. Albans, W. Va. (47a)
- Brown, Alfred, Constr. Co., Salt Lake City, Utah (43a)
- Brown Bros., Lansing, Mich. (21c)
- Brown Bros., Chattanooga, Tenn. (41a)
- Brown Bros. Constr. Co., Manhattan, Kans. (15b)
- Brown & Brown, Inc., Salina, Kans. (15b)
- Brown, Chas. T., Co., San Fernando, Calif. (4d)
- Brown Constr. Co., Colorado Springs & Pueblo, Colo. (5b) (49a)
- Brown Constr. Co., Portland, Me. (18a)
- Brown Constr. Co., Houston, Texas (42d)
- Brown Constr. Co., The, Cleveland, Ohio (34c)
- Brown Contr. Co., Albuquerque, N. Mex. (30a)
- Brown, Dave L., Chattanooga, Tenn. (41a)
- Brown & Denesia Constr. Co., Broken Bow, Nebr. (26a)
- Brown-Ely Co., El Cerrito, Contra Costa County, Calif. (4b)
- Brown, J. M., Constr. Co., Inc., Shreveport, La. (17b)
- Brown, M. Clint, Co., Longview, Texas (42n)
- Brown, M. W., Redding, Calif. (4b)
- Brown, Marvin, Inc., Houston, Texas (42f) (42j)
- Brown Paving Co., Lexington, N. C. (32a)
- Brown, Robt. C., Riviera Beach, Fla. (9e)
- Brown & Root, Inc., Houston & Austin, Texas (42f) (42j)
- Brown-Schrepferman & Co., Denver, Colo. (5a)
- Brown, V. U., Constr. Co., Downs, Kans. (15b)
- Browning, C. L., Jr., San Antonio, Texas (42e)
- Bruce Constr. Co., Fort Worth, Texas (42j)
- Brucek Constr. Co., Battle Creek, Iowa (14a)
- Brummel, B. J., Constr. Co., Garnett, Kans. (15b)
- Brunalli Constr. Co., Southington, Conn. (31d)
- Brunetta, Dan, Gallup, N. Mex. (30b)
- Brunn Constr. Co., Kansas City, Mo. (24b)
- Brunn, S. R., Constr. Co., Kansas City, Mo. (24a)
- Brunner Asphalt & Constr., Inc., Buffalo, N. Y. (31d)
- Brunson, E. A., Constr. Co., St. Louis, Mo. (24c)
- Bryan, Frank, Inc., McKees Rocks, Pa. (37c)
- Bryan & Hoffman, Plainview, Texas (42f)
- Bryan, J. N., & Son, Raleigh, N. C. (32a)
- Bryant Co., Franklin, Ind. (13a)
- Bryant & Detwiler Co., Detroit, Mich. (21a) (21c)
- Bryant, J. A., Vallejo, Calif. (4a)
- Bryant, J. Arlie, Spokane, Wash. (46c)
- Bryson & Ward, Memphis, Tenn. (41c)
- Buchanan, P. A., Contr. Co., Birmingham, Ala. (1a)
- Buchanan, T. N., Constr. Co., Seattle, Wash. (46b)
- Buchheit, Jos., & Sons Co., The, Youngstown, Ohio (34f)
- Buchholz, Walter T., Inc., Milwaukee, Wis. (48a)
- Buck, Clifford, Constr. Co., Muskegon, Mich. (21b)
- Buck-MacDonald Co., Boston, Mass. (20a)
- Buckler, Geo. H., Co., Portland, Oreg. (36a)
- Buckner, John F., & Sons, Cleburne, Texas (42f)
- Buckner & Pittman, Dallas, Texas (42a)
- Buckner, R. C., Jacksonville, Texas (42f)
- Bucks County Constr. Co., Inc., South Langhorne & Penndel, Pa. (29a) (37e)
- Bucy, A. L., Brownwood, Texas (42f)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 267). N—National Member (page 375). L—Local Member.

Buesching Bros. Constr. Co., Fort Wayne, Ind. (13b)
 Bugbee, Newton A. K., & Co., Trenton, N. J. (29a)
 Buice, A. A., Elsa, Texas (42o)
 Builders Co., The, Chicago, Ill. (12a)
 Builders, Co., Inc., of Youngstown, Ohio, The, Youngstown, Ohio (34f)
 Builders Constr. Co., Oklahoma City, Okla. (35a)
 Building Service Co., West Point, Miss. (23d)
 Bulley & Andrews, Chicago, Ill. (12a)
 Bungarner's Constr. Co., Conover, N. C. (32a)
 Bumiller & Meyersieck, St. Louis, Mo. (24c)
 Bunce, H. E., Waverly, N. Y. (31d)
 Bunch Constr. Co., Odessa, Texas (42p)
 Bundock, H. R., Lubbock, Texas (42p)
 Bunger, Harry, & Son, Cromwell, Ind. (13b)
 Bunnell-Ludwig Corp., North Miami Beach, Fla. (9b)
 Buquet & LeBlanc, Baton Rouge, La. (17d)
 Burch Constr. Co., Madison, Wis. (14a)
 Burch, R. B., Inc., Cedar Rapids, Iowa (14a)
 Burden, Geo. H., Co., Inc., Little Rock, Ark. (3a)
 Burden, O. R., Constr. Corp., Tulsa, Okla. (42m)
 Burge, Floyd S., Constr. Co., Winston-Salem, N. C. (32a)
 Burger, Michael T., Portland, Oreg. (36a)
 Burgess, A. E., Contr. Co., Birmingham, Ala. (1a)
 Burgess Bros., Pinetops, N. C. (32a)
 Burgraf Constr. Co., Idaho Falls, Idaho (11a)
 Burghart, O. F., Inc., Bridgeport, Conn. (6a)
 Burk Constr. Co., Springfield, Mo. (24b)
 Burke, J. P., Gadsden, Ala. (1a)
 Burke, Jas. J., & Co., Salt Lake City, Utah (43a)
 Burke, O. W., Co., Detroit, Mich. (21a)
 Burke & Reynolds Constr. Co., Wilmington, Calif. (4d)
 Burleson Constr. Co., Johnson City, Tenn. (41e)
 Burman, John, & Sons, Eureka, Calif. (4b)
 Burn, P. R., Las Cruces, N. Mex. (30a)
 Burner, J. R., Oblong, Ill. (12c)
 Burnett Constr. Co., Coalinga, Calif. (4b)
 Burnett Constr. Co., Durango, Colo. (5b)
 Burnett Constr. Co., Corpus Christi, Texas (42i)
 Burns, A. W., Constr. Co., The, Columbus, Ohio (34d)
 Burns Constr. Co., Tulsa, Okla. (35a)
 Burns, J. P., Dumont, N. J. (29a)
 Burns, Tom, & Co., Inc., Portland, Oreg. (36b)
 Burrell Constr. & Supply Co., New Kensington, Pa. (37c)
 Burt & Binford, Hutchinson, Kans. (15b)
 Burton, A. B., Co., Inc., Lynchburg, Va. (32a)
 Burton, Chas. A., Inc., Cleveland, Ohio (34c)
 Burton & Glithero, Houston, Texas (42d)
 Burton, J. E., South Boston, Va. (45a)
 Burton-Miller Constr. Co., Inc., Ardmore, Okla. (35a)
 Bushboom & Rauh, Salina, Kans.; Dallas, Texas, & Spokane, Wash. (15a) (42a) (46e)

Bush, E. B., Constr. Co., Oklahoma City, Okla. (35a)
 Bushman Constr. Co., Kansas City, Mo. (12c)
 Bushman Constr. Co., St. Joseph, Mo. (24b)
 Busse, Henry, Pittsburgh, Pa. (37b)
 Butcher & Sweeney Constr. Co., Fort Worth, Texas (42c)
 Butler & Cobbs, Montgomery, Ala. (1a)
 Butler Constr. Co., Grand Forks, N. Dak. (33a)
 Butler Constr. & Engr. Co., Seattle, Wash. & Anchorage, Alaska (46a) (50a)
 Butler, H. L., & Son, Dallas, Texas (42f)
 Butler, Leo, Co., The, College Park, Md. (37e)
 Butler & Oenbrink, Palm Beach, Fla. (9c)
 Butler, Oscar & Son, Portland, Oreg. (36a)
 Butler, R. B., Inc., Bryan, Texas (42d) (42f)
 Butte Creek Rock Co., Chico, Calif. (4b)
 Butterfield, C. R., Co., San Pedro, Calif. (4d)
 Butterfield, L. B., San Diego, Calif. (4c)
 Buttfeld & Eames, Inc., Plainfield, N. J. (29a)
 Buttress & McClellan, Inc., Los Angeles, Calif. (4d)
 Byers, J. B., Kilgore, Texas (42n)
 Byrne, Thos. S., Inc., Fort Worth, Texas (42c)
 Byron Constr. Co., The, Wheeling, W. Va. (47a)

C

C-B Constr. Co., Baton Rouge, La. (17d)
 C & C Contrs., Albuquerque, N. Mex. (30a)
 C. & E. Constr. Co., Inc., Yakima, Wash. (46a) (46c)
 C & H Constr. Co., Salina, Kans. (15b)
 C. and H. Constr. Co., Miles City, Mont. (25b)
 C-L Electric Co., Pocatello, Idaho (11a)
 C & M Constr. Co., Oklahoma City, Okla. (35b)
 C & T Constr. Co., Collingswood, N. J. (29a)
 C & T Constr. Co., Inc., Collingswood, N. J. (37c)
 Cable Guide Rail Constr. Co., Depew, N. Y. (31d)
 Cadenhead & Rosser, Fort Worth, Texas (42c)
 Cadillac Asphalt Paving Co., Detroit, Mich. (21c)
 Cady, Wm. J., & Co., Amsterdam, N. Y. (31d)
 Cafardi, A. R., Pittsburgh, Pa. (37c)
 Cage Bros., San Antonio, Texas (42f)
 Cagle, Harry E., Houston, Texas (42f)
 Cahill Bros., Inc., San Francisco, Calif. (4a) (4d)
 Cahill-Mooney Constr. Co., Butte, Mont. (25a) (25b)
 Cahoon, W. R., Pocatello, Idaho (11a)
 Cail, Geo. F., & Son, Port Isabel, Texas (42o)
 Cain & Cain, Fort Worth, Texas (42c)
 Calaway, C. P., Toledo, Ohio (34d)
 Caldwell, E. A., Baton Rouge, La. (17e)
 Caldwell & McCann, Baton Rouge, La. (17d)
 California Steel & Constr. Co., Los Angeles, Calif. (4d)

California Steel Prods. Co., Ind. Constr. & Maint. Div., Richmond, Calif. (4b)
 Callahan Constr. Co., Colma, Calif. (4b)
 Callahan, Herbert E., Inc., Auburn, Me. (18a)
 Callan Constr. Co., Waco, Texas (42f)
 Callaway Constr. Co., Warrington, Fla. (9d)
 Calumet Paving Co., Zionsville, Ind. (13a)
 Cameron, Joyce & Co., Keokuk, Iowa (12c) (14a) (24b)
 Campanella, Edw. P., Hammonton, N. J. (29a)
 Campbell, Archie, Warwick, N. Dak. (33a)
 Campbell Constr. Co., Ontario, Calif. (4d)
 Campbell Constr. Co., Jackson, Miss. (23b)
 Campbell Constr. Co., Sacramento, Calif. (4a)
 Campbell Constr. Co., Inc., Shreveport, La. (17e)
 Campbell Constr. Co., The, Warren, Ohio (34f)
 Campbell Constr. & Equip. Co., San Francisco, Calif. (4b)
 Campbell, Harry, Abilene, Texas (42f)
 Campbell & Kay, Tyler, Texas (42d) (42f)
 Campion Co., Ogden, Utah (43a)
 Campion, F. K., Philadelphia, Pa. (37d)
 Campsey, R. N., Constr. Co., Denver, Colo. (5b)
 Canady Constr. Co., Charleston, S. C. (32a)
 Candoo Constr. Co., Inc., Houston, Texas (42d)
 Canfield, Badgett & Scarbrough Co., Memphis, Tenn. (41c)
 Canion, J. R., Constr. Co., Austin, Texas (42f)
 Cannell, E. W., Gardena, Calif. (4d)
 Cannon Constr. Co., Stockton, Calif. (4b)
 Cannon Constr. Co., Inc., Indianapolis, Ind. (13b)
 Cannon & Papanikolas, Magna, Utah (43a)
 Canonie Excavating Co., Covert, Mich. (21c)
 Canoro Constr. Co., Fairbanks, Alaska (50a)
 Canter Constr. Co., Brookline, Mass. (20b)
 Cantera Constr. Co., Wilmington, Del. (7a)
 Canterbury Engr. Co., Kilgore, Texas (42n)
 Canuso, Francis A., & Son, Philadelphia, Pa. (29a) (37c)
 Capital Co., San Francisco, Calif. (4b)
 Capital Constr. Co., Atlanta, Ga. (10a)
 Capps, Gordon L., Stockton, Calif. (4b)
 Carbon Bros., Spokane, Wash. (46c)
 Carbone, R. P., Constr. Co., Cleveland, Ohio (34c)
 Cardarelli, G. E., San Francisco, Calif. (4b)
 Cardwell, Leo, Constr. Co., Santa Cruz, Calif. (4b)
 Carey Constr. Co. & H. C. Adams, Lexington, Ky. (16a)
 Carl, H. G., Constr. Co., Salem, Oreg. (36a)
 Carlen Constr. Co., Assocs., San Francisco, Calif. (4a)
 Carlson, Arved, Missoula, Mont. (25b)
 Carlson Constr. Co., Essex, Iowa (14a)
 Carlson Constr. Co., Omaha, Nebr. (14a)
 Carlson, Fred, Co., Inc., Decorah, Iowa (14a)
 Carlson, Geo., Co., Milwaukee, Wis. (48a)
 Carlson, Henry, Company, Sioux Falls, S. Dak. (1)
 Carlson & Torell Co., The, New Britain, Conn. (6a)
 Carlstrom Bros., Fremont, Nebr. (26a)

A.G.C. DIRECTORY

- Carmichael Constr. Co., The, Akron, Ohio (34a)
 Carmichael & James, Hastings, Nebr. (26a)
 Carney, Jas. A., Norfolk, Va. (45a)
 Carolina Constr. Co., Inc., Columbia, S. C. (32a)
 Carothers, John, Fremont, Mich. (21c)
 Carpenter Bros., Dallas, Texas (42a)
 Carpenter Constr. Co., Houston, Texas (42d)
 Carpenter Constr. Co., Norfolk, Va. (45a)
 Carpenter, Hugh J., & Sons, Inc., Lansing, Mich. (21b)
 Carpenter, O. L., Lemon Grove, Calif. (4c)
 Carpenter, R. E., & Co., Rutherfordton, N. C. (32a)
 Carper & Perryclear, Christiansburg, Va. (32a)
 Carrioco & Gautier, San Francisco, Calif. (4a)
 Carroll, A. C., Modesto, Calif. (4a)
 Carroll Constr. Co., Atlanta, Ga. (10a)
 Carroll Constr. Co., Chicago, Ill. (12a)
 Carroll, Matthew L., Inc., New York City (31c)
 Carrothers Constr. Co., Inc., Paola, Kans. (15b)
 Carruth, Geo. M., & Son, Evanston, Wyo. (49a)
 Carson Constr. Co., Inc., Helena, Mont. & Anchorage, Alaska (25b) (50a)
 Carstensen, Inc., Johnstown, Pa. (37a)
 Carstensen, John A., Castro Valley, Calif. (4b)
 Carte Bros. Constr. Co., Inc., West Plains, Mo. (24b)
 Carter, A. G., Jr., Whiteville, N. C. (32a)
 Carter, C. E., Akron, Ohio (34a)
 Carter, Chas., Baton Rouge, La. (17d)
 Carter, Geo. W., Co., Los Angeles, Calif. (4a) (4d)
 Carter-Hassell Constr. Co., Norfolk, Va. (45a)
 Carter-Miot Constr. Co., Columbia, S. C. (32a)
 Carter, W. B., Constr. Co., Wichita, Kans. (15b)
 Carty, Herman, Little Rock, Ark. (3a)
 Cascade Constr. Co., Portland, Ore. (36a)
 Cascade Constrs., Inc., Seattle, Wash. (46a)
 Case, F. W., Co., Newhall, Calif. (4d)
 Casey, Geo. F. Co., Los Angeles, Calif. (4d)
 Casey, John F., Co., Pittsburgh, Pa. (37b) (37c)
 Caskey, G. M., & Son, Athens, Ga. (10a)
 Casper, Everett, Constr., Grand Rapids, Minn. (22a)
 Cass-Warner Corp., Essex Junction, Vt. (28a)
 Cassel Bros., Kingsport, Tenn. (41e)
 Cassidy, John, Constr. Co., Memphis, Tenn. & Paducah, Ky. (16c) (41c)
 Casson Constr. Co., Topeka, Kans. (15a)
 Castle Constr. Co., Grottoes, Va. (45a)
 Castle, E. B., & Son, Marion, Iowa (14b)
 Castle, M. F., Spokane, Wash. (46c)
 Castro, Earl W., Martinez, Calif. (4b)
 Castro Valley Rock Co., Hayward, Calif. (4b)
 Cauldwell-Wingate Co., New York City (31c)
 Cawdrey & Vemo, Seattle, Wash. (46b)
 Caye Constr. Co., Inc., Brooklyn, N. Y. (31c)
 Caylor Bros. Constr. Co., Medicine Lodge, Kans. (15b)
 Cayuga Foundation Corp., New York, N. Y. (29a)
 Cecil, J. K., & Son, Lexington, N. C. (32a)
 Cecil's, Inc., Spartanburg, S. C. (32a)
 Cederstrand, August, Co., Minneapolis, Minn. (22a)
 Ceis, Philip L., Seattle, Wash. (46b)
 Cement Asphalt Prods. Co., Winfield, Kans. (15b)
 Cement Gun Constr. Co., Inc., Sausalito, Calif. (4b)
 Centex Paving Co., San Antonio, Texas (42f)
 Central California Constr. Co., San Francisco, Calif. (4a)
 Central Constr. Co., Decatur, Ga. (10a)
 Central Constr. Co., Indianola, Iowa (14a)
 Central Constr. Co., Oshkosh, Wis. (48b)
 Central Engr. Co., Davenport, Iowa (12c) (14a)
 Central Engr. & Constr. Co., Pawtucket, R. I. (38a)
 Central Heating Co., The, Eugene, Ore. (36a)
 Central States Bridge Co., Lincoln, Nebr. (14a)
 Century Constr. Co., Houston, Texas (42j)
 Century Constr. Co., Inc., Kansas City, Mo. (24a)
 Certified Bldrs., Washington, D. C. (8a)
 Chadwick & Buchanan, Manhattan Beach, Calif. (4d)
 Chamberlain & Strain, San Antonio, Texas (42e)
 Chambers Constr. Co., Houston, Texas (42d)
 Chambers Constr. Co., Lincoln, Nebr. (26b)
 Chambers Steel Co., San Diego, Calif. (4c)
 Chambers-Tarbell, Kansas City, Mo. (24a)
 Champaign Asphalt Co., Champaign, Ill. (12c)
 Chandler Constr. Co., Cameron, Texas (42k)
 Chapel Constr. Co., The, New Haven, Conn. (6a)
 Chapin & Chapin, Inc., Norwalk, Ohio (34d)
 Chapman Constr. Co., Lawton, Okla. (35a)
 Chapman, J. F., & Son, Inc., Hillside, N. J. (29a)
 Chapman, L. O., Co., Charlotte, N. C. (32a)
 Chapman, Oscar T., Inc., Hutchins, Texas (42l)
 Chappell Constr. Co., Inc., DeSoto, Mo. (24b)
 Chappell, W. M., Inc., Washington, D. C. (8a)
 Charleston Concrete Floor Co., Charleston, W. Va. (47a)
 Chase Constr. Co., Rapid City, S. Dak. (40a)
 Chavis Constr. Co., Pensacola, Fla. (9d)
 Check, Geo. H., Constr. Co., Inc., Frankfort, Ky. (16a)
 Cheney, F. G., Williamston, Mich. (21c)
 Cherf Bros. Constr., Ephrata, Wash. (46c)
 Cherokee, Inc., Columbia, S. C. (32a)
 Chevreux, Joe, Auburn, Calif. (4b)
 Chief Joseph Bldrs., Bridgeport, Wash. (46c)
 Child, Ralph E., Springfield, Utah (43a)
 Childs Constr. Co., Fort Worth, Texas (42c)
 Chilli, Geo. H., Homestead, Pa. (37b)
 Chisholm, Ralph, Constr. Co., Bellingham, Wash. (46b)
 Chism & Miller Constr. Co., Springfield, Ill. (12c)
 Choate, F. D., Springfield, Mo. (24b)
 Choate, Milo J., & Co., Tyler, Texas (42n)
 Choun Constr. Co., Inc., Denver, Colo. (5b)
 Christ, Carl W., Sidney, Nebr. (26a)
 Christensen Bros., Sioux City, Iowa (14a)
 Christensen Constr. Co., Sibley, Iowa (14b)
 Christensen Constr. Co., Salt Lake City, Utah (43a)
 Christensen & Lyons, Oakland & South Gate, Calif. (4a) (4d)
 Christensen Sand & Gravel Co., Fremont, Nebr. (26b)
 Christian & Bell Co., Atlanta, Ga. (10a)
 Christian, J. E., Co., The, Cleveland, Ohio (34c)
 Christiana, Vernon, Jr., Utica, N. Y. (31d)
 Christiansen Bros., Salt Lake City, Utah (43a)
 Christie Co., Arcadia, Calif. (4d)
 Christie, Richard H., Wasta, S. Dak. (40a)
 Christman Co., The, Lansing, Mich. (21b)
 Christman, H. G., Constr. Co., Inc., South Bend, Ind. (13b)
 Christman & Parsons, Spartanburg, S. C. (32a)
 Christopher Constr. Co., Columbus, Ohio (34d)
 Christy & Baskett, San Antonio, Texas (42e)
 Chytraus Bros. Co., Salt Lake City, Utah (43a)
 Circle Constr. Corp., White Plains, N. Y. (31d)
 City Constr. Co., Utica, N. Y. (31d)
 City Lumber Co., Inc., Alexandria, La. (17f)
 Cladny, M., Constr. Co., Inc., Washington, D. C. (8a)
 Clair-Mel Bldrs., Inc., Tampa, Fla. (9c)
 Clancy Constr. Co., Raleigh, N. C. (32a)
 Clardy, J. B., Constr. Co., Fort Worth, Texas (42f)
 Clark Bros. Co., Peoria, Ill. (12c)
 Clark Bros. Constr. Co., Hinton, Iowa (14a)
 Clark Constr. Co., St. Joseph, Mo. (24b)
 Clark Constr. Co., Owensboro, Ky. (13c)
 Clark Constr. Co., Inc., Grand Ledge, Mich. (21b)
 Clark & Farrell, Brinkley, Ark. (23a)
 Clark & Fay, Memphis, Tenn. (41c)
 Clark, John R., & Assoc., Inc., Cambridge, Mass. (20b)
 Clark, L. C., Visalia, Calif. (4b)
 Clark, Richard F., Co., Cambridge, Mass. (20b)
 Clark, Roy C., East Chicago, Ind. (13b)
 Clark & Todd, Charlotte, N. C. (32a)
 Clark, W. G., Co., Seattle, Wash. (46b)
 Clarkson Constr. Co., The, Kansas City, Mo. (15b) (24b)
 Clarson, R. E., Inc., St. Petersburg, Fla. (9c)
 Claussen, John, & Sons, Grand Island, Nebr. (26a)
 Claussen-Lawrence Constr. Co., Augusta, Ga. (32a)
 Claussen-Olson-Benner, Inc., Holdrege, Nebr. (26b)
 Clayton, A. L., Co., Jacksonville, Fla. (9a)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 267). N—National Member (page 375). L—Local Member.

- Clearkin, Jas. J., Philadelphia, Pa. (37d)
 Cleary Bros. Constr. Co., West Palm Beach, Fla. (9e)
 Cleaver, David, Co., Akron, Ohio (34a)
 Cleckley, J. F., & Co., Orangeburg, S. C. (32a)
 Cleckley & McGee, Inc., Orangeburg, S. C. (32a)
 Clement Bros. Co., Inc., Lenoir, N. C. (32a)
 Clements & Co., Hayward, Calif. (4b)
 Clemmer Constr. Co., Inc., Akron, Ohio (34a)
 Cleveland Constr. Co., The, Cleveland, Ohio (34c)
 Click Constr. Co., Elizabethton, Tenn. (41e)
 Clifford, R. G., & C. O. Bodenhamer, Berkeley, Calif. (4b)
 Clifton & Applegate Co., Yardley, Wash. (25a) (46c)
 Clifton, B. C., Co., Memphis, Tenn. (41c)
 Cline, F. D., Constr. Co., Raleigh, N. C. (32a)
 Clinton Bridge Corp., Clinton, Iowa (14a)
 Clinton Constr. Co., San Francisco, Calif. (4a)
 Clinton Engr. Co., Clinton, Iowa (14a) (14b)
 Clinton, Houston, & Co., Burnet, Texas (42f)
 Cloer, E. E., Fort Worth, Texas (42c)
 Close Bldg. Supply, Hayward, Calif. (4b)
 Cloud, Dudley R., & Son, San Antonio, Texas (42f)
 Clough, L. M., Co., Oakland, Calif. (4b)
 Clutter Constr. Corp., Miami, Fla. (9b)
 Clyde, W. W., & Co., Springville, Utah (43a)
 Coast Constr. & Excavating Co., Junction City, Oreg. (36a)
 Coast Contrs., Tacoma, Wash. (46d)
 Coast, H. M., Inc., Wheeling, W. Va. (47a)
 Coast Materials Co., Gulfport, Miss. (23c)
 Coast Pipeline Contrs., Belmont, Calif. (4b)
 Coastal Constr. Co., Rose Hill, N. C. (32a)
 Coastal Properties Corp., West Palm Beach, Fla. (9e)
 Coates Constr. Co., Florence, S. C. (32a)
 Coath & Goss, Inc., Chicago, Ill. (12a)
 Coble Contr. & Engr. Co., Greensboro, N. C. (32a)
 Coble, H. L., Constr. Co., Inc., Greensboro, N. C. (32a)
 Coble, Jesse M., Greensboro, N. C. (32a)
 Codell Constr. Co., Inc., Winchester, Ky. (16a)
 Codell, M. T., & Co., Inc., Winchester, Ky. (16a)
 Coe, J. L., Constr. Co., Charlotte, N. C. (32a)
 Coffeen, A. R., Co., Decorah, Iowa & Allison Park, Pa. (14a) (14b) (37c)
 Coffey, Jas., Topeka, Kans. (15b)
 Coggins Constr. Co., Inc., Raleigh, N. C. (32a)
 Cogswell Constr. Co., The, Baltimore, Md. (19a)
 Cohen, Chas., Marshall, Texas (42f)
 Cohen, S. J., Blytheville, Ark. (23a)
 Cokenour Constr. Co., Ardmore, Okla. (35b)
 Cohron, A. M., & Son, Des Moines, Iowa (14a) (14b)
 Coker Constr. Co., Anchorage, Alaska (50a)
 Cold Spring Constr. Co., Akron, N. Y. (31d)
 Cole, Ben, & Son, Ames, Iowa (14a)
 Cole & Crumpacker, West Durham, N. C. (32a)
 Coleman Constr. Co., Lynchburg, Va. (45a)
 Coleman Constr. Co., Inc., Providence, R. I. (38a)
 Coleman, L. S., Co., Inc., St. Albans, W. Va. (47a)
 Colglazier & Hoff, Inc., San Antonio, Texas (42f)
 Collins, A. B., Mechanicville, N. Y. (31d)
 Collins-Bruley Constr. Co., Decatur, Ill. (12c)
 Collins Constr. Co., Kansas City, Kans. (24a)
 Collins Constr. Co., Leavenworth, Kans. (15b)
 Collins Constr. Co., Austin, Texas (42f)
 Collins, D. A., Mechanicville, N. Y. (31d)
 Collins, H. V., Providence, R. I. (38a)
 Collins & Hobbs, Chattanooga, Tenn. (41a)
 Collins, J. H., & Co., Walla Walla, Wash. (46c)
 Collins, O. W., Port Arthur, Texas (42b)
 Collins, Wm. L., Hornell, N. Y. (31d)
 Collins, Wm., & Sons, Inc., Fargo, N. Dak. (33a)
 Colorado Constrs., Inc., Denver, Colo. (5b)
 Coltrane-Graham Constr. Co., High Point, N. C. (32a)
 Coluccio, Thos. F., & Sons, Rome, N. Y. (31d)
 Columbia Asphalt Paving Co., Yakima, Wash. (46a)
 Columbia Contr. Co., Pittsburgh, Pa. (37c)
 Columbus Paving Co., Columbus, Ind. (13a)
 Colvin, Leslie, Indianapolis, Ind. (13b)
 Comb, Fred R., Co., Minneapolis, Minn. (22a)
 Commercial Bldrs., Inc., Moscow, Idaho (46e)
 Commercial Contr. Corp., Detroit, Mich. (21a)
 Complete General Constr. Co., Columbus, Ohio (34d)
 Compton, J. C., Co., McMinnville, Oreg. (36a)
 Comstock Constr. Co., Bay City, Mich. (21c)
 Comte Constr. Co., Toledo, Ohio (34e)
 Concrete Bldrs., Inc., Atlanta, Ga. (10a)
 Concrete Conduit Co., Lindsay, Calif. (4a) (4d)
 Concrete Constr. Co., Portland, Oreg. (36a)
 Concrete Constr. Co., Atlanta, Ga. (10a)
 Concrete Materials & Constr. Co., Cedar Rapids, Iowa (14a) (15b) (24b) (26b)
 Condict Co., Berkeley, Calif. (4b)
 Condon-Cunningham Co., Omaha, Nebr. & Dunbar, W. Va. (N) (5b) (14a) (24b) (26b) (47a)
 Conduit Constr. Co., Walnut Creek, Calif. (4b)
 Conduit Contr. Co., Inc., St. Louis, Mo. (12d) (24b) (24c)
 Conduit & Foundation Corp., Philadelphia, Pa. (37e)
 Cone Bros. Constr. Co., Tampa, Fla. (9c)
 Congaree Constr. Co., Columbia, S. C. (32a)
 Conley Constr. Co., Mobile, Ala. (1a)
 Conley, J. N. & M. J., Portland, Oreg. (36a)
 Conlon Constr. Co., Dubuque, Iowa (14b)
 Conn Structures, Atlanta, Ga. (10a)
 Connell Constr. Co., Dallas, Texas (42a)
 Connelly, D. T., Washington, Pa. (37c)
 Conner, Frank H., Co., Charlotte, N. C. (32a)
 Conner, Harvey E., Redwood City, Calif. (4b)
 Conner, J. L., Jr., Eureka, Calif. (4b)
 Connolly-Pacific Co., Long Beach, Calif. (4d)
 Connor, J. Robt., High Point, N. C. (32a)
 Conquest, Moncure, & Dunn, Inc., Richmond, Va. (45a)
 Conroy, Dan, & Sons, Collis, Minn. (22a)
 Consolidated Constr. Co., Lumberton, N. C. (32a)
 Consolidated Constr. Co., Bay City, Mich. (21b)
 Consolidated Constr. Co., Gulfport, Miss. (23c)
 Consolidated Constr. Co., Inc., Woodbury, N. J. (29a)
 Consolidated Constrs., Inc., Portland, Me. (18a)
 Consolidated Contrs., Memphis, Tenn. (41c)
 Consolidated Engr. Co., Wheeling, W. Va. (47a)
 Consolidated Engr. Co., Inc., Baltimore, Md. (8a) (19a)
 Constant Constr. Co., Inc., Lawrence, Kans. (15a) (15b)
 Construction Aggregates Corp., New York, N. Y. (29a)
 Construction Engrs. & Contrs., Tacoma, Wash. (46d)
 Construction Materials Co., Tucson, Ariz. (2a)
 Construction Service Co., Bound Brook, N. J. (29a)
 Construction Service, Inc., Ludlow, Ky. (47a)
 Conti & Donahue, Lynn, Mass. (20b)
 Continental Constr. Co., Inc., Sacramento, Calif. (4a)
 Contracting Constr. Co., Danville, Ill. (12c)
 Contracting Engrs. Co., The, Los Angeles, Calif. (4d)
 Conyes Constr. Corp., San Pablo, Calif. (42m)
 Coogan, Thos. P., Co., Hialeah, Fla. (3a)
 Cook & Cone, Wichita, Kans. (15b)
 Cook Constr. Co., Jackson, Miss. (23a)
 Cook, Geo., Constr. Co., Lincoln, Nebr. (26a)
 Cook, Geo. F., Constr. Co., Minneapolis, Minn. (2a) (22a)
 Cook, John R., & Co., Inc., Augusta, Ga. (32a)
 Cook, Ray, Constr. Co., Ames, Iowa. (14a)
 Cook, S. J., & Son, Costa Mesa, Orange County, Calif. (4d)
 Cooke Constr. Co., The, Detroit, Mich. (21c)
 Cooley, E. O., Constr. Co., Ruston, La. (17g)
 Cooley, John, Co., Detroit, Mich. (21a)
 Coomer, R. M., Constr. Co., Sioux City, Iowa (14b)
 Coon, B. G., Constr. Co., Luzerne, Pa. (37a) (37e)
 Cooney, Don L., Inc., Seattle & Tacoma, Wash. (46a) (46d)
 Coons, E. W., Co., Inc., Hibbing, Minn. (22a)
 Cooper Constr. Co., Omaha, Neb. (26a)
 Cooper, S. E., Co., Wilmington, N. C. (32a)
 Cooper, W. M., Santa Fe, N. Mex. (30b)
 Cooper & Woodruff, Amarillo, Texas (42f)
 Coos Bay Dredg. Co., Inc., Coos Bay, Oreg. (36a)
 Copeland Constr. Co., Bellaire, Texas (42d)
 Corbett, Frank D., Sacramento, Calif. (4b)
 Corbetta Constr. Co., Inc., New York, N. Y. (31d)

A.G.C. DIRECTORY

- Corbin, John C., Contrs., Inc., Houma, La. (17a)
 Corbisello, N. R., Binghamton, N. Y. (31d)
 Corde & Starke, Richmond, Va. (45a)
 Corley Constr. Co., Oklahoma City, Okla. (35a)
 Corn Constr. Co., Grand Junction, Colo. (5b)
 Cornell, J. S., & Son, Inc., Philadelphia, Pa. (37d)
 Cornell-Young Co., Macon, Ga. (10a)
 Corning, Edw., Co., New York City (31c)
 Cornish Constr. Co., Greensburg, Pa. (37c)
 Corr, John L., Jr., New Orleans, La. (17a)
 Corson & Gruman Company, Washington, D. C. (1)
 Corum & Edwards, Madisonville, Ky. (16a)
 Cory & Longworth, Inc., San Diego, Calif. (4c)
 Costigan, J. C., Elkader, Iowa (14a)
 Coston, W. L., & Sons, Birmingham, Ala. (1a)
 Cottle, L. W., Clovis, N. Mex. (30b)
 Cotton Constr. Co., Chula Vista, Calif. (4c)
 Couch Constr. Co., Dothan, Ala. (1a)
 Council Bluffs Constr. Co., Council Bluffs, Iowa (14a)
 Counties Contr. & Constr. Co., Philadelphia, Pa. (37c)
 County Asphalt, Inc., Tarrytown, N. Y. (31d)
 Couper, Wm. M., Co., Ann Arbor, Mich. (21c)
 Couse, Walter L., & Co., Detroit, Mich. (21a)
 Cousins, Geo. L., Contr. Co., St. Louis, Mo. (24c)
 Cowan, C. J., Constr. Co., Inc., Topeka, Kans. (35a)
 Cowan, H. J., Contr. & Bldr., Algona, Iowa (14b)
 Cowart, O. D., Albuquerque, N. Mex. (30a)
 Cowdin Bros., Dallas, Texas (42a)
 Cowen Constr. Co., Shawnee, Okla. (35a)
 Cowper, John W., Co., Inc., The, Buffalo, N. Y. (N) (31a)
 Cox, Fred M., Jacksonville, Fla. (9a)
 Cox, L. P., Co., Sanford, N. C. (32a)
 Cox, P. T., Constr. Co., Inc., New York, N. Y. (29a)
 Crabtree-Maule Corp., Richmond, Ind. (13b)
 Craig, Jay W., Co., Minneapolis, Minn. (22a) (40a)
 Craig, John W., Charlotte, N. C. (32a)
 Craig-Roberson Constr. Co., Columbia, S. C. (32a)
 Grain & Denbo, Inc., Durham, N. C. (32a)
 Cramer, E. F., Indianapolis, Ind. (13b)
 Cramer-Vollmerhausen Co., Inc., Washington, D. C. (8a)
 Crandall Engr. Co., Boston, Mass. (20a)
 Cranford, Frederick L., Inc., Brooklyn, N. Y. (N)
 Crawford-Merz Co., Minneapolis, Minn. (22a)
 Crawford, W. S., Co., Dallas, Texas (42f)
 Crawford, Wm., Inc., New York City (31c)
 Crawley, David, Cincinnati, Ohio (34b)
 Creager Bros. Constr. Co., Pierre, S. Dak. (40a)
 Creed, Geo. A., & Son, Columbia, S. C. (32a)
 Creson, R. F., & Co., Memphis, Tenn. (41c)
 Crick, Jas., & Sons, Spokane, Wash. (46c)
 Critcher, J. C., Inc., Asheville, N. C. (32a)
 Crocco & Hanson, Vallejo, Calif. (4b)
 Crocker & Ellett, Inc., Denver, Colo. (5b)
 Crockett, Leslie, Constr. Co., Austin, Texas (42k)
 Croissant, F. J., Antwerp, N. Y. (31d)
 Cromer, Howard Lee, Delray Beach, Fla. (9c)
 Cromer & Sullivan Constr. Co., Anderson, S. C. (32a)
 Crooker & Simpson, Brunswick, Me. (18a)
 Cropp, E. H., Constr. Co., Mobile, Ala. (1a)
 Crosby Constr. Co., Inc., Union, S. C. (32a)
 Crosland Constr. Co., Columbia, S. C. (32a)
 Cross, E. J., Company, Worcester, Mass. (1)
 Cross, Jas. P., New Iberia, La. (23a)
 Crossin Contr. Co., Houston, Texas (42d)
 Crossman-McCoy, Inc., Niles, Mich. (21c)
 Crouch, M. G., Lumber Co., Hickory, N. C. (32a)
 Crouch, Robt. C., & Co., Memphis, Tenn. (41c)
 Crow, Fount, Ltd., Beaver Dam, Ky. (16a)
 Crow, L. A. & R. S., El Monte, Calif. (4d)
 Crow, Wm. L., Constr. Co., New York City (31c)
 Crowder Constr. Co., Charlotte, N. C. (32a)
 Crowder, J. W., Constr. Co., Inc., Houston, Texas (42d)
 Crowell, Wm. C., Co., Pasadena, Calif. (4d)
 Crumley, Jones & Crumley Co., The, Deer Park, Ohio (34b)
 Crump, Edw., Jr., Inc., Pittsburgh, Pa. (37b)
 Crumpecker, Wm., & Sons, Morehouse, Mo. (23a)
 Culberson Constr. Co., Pana, Ill. (12c)
 Cullen, J. P., & Son, Janesville, Wis. (48b)
 Cullinan, R. A., & Son, Tremont, Ill. (12c)
 Cullum, W. G., & Co., Dallas, Texas (42j)
 Culp, J. F., Constr. Co., Maryville, Mo. (24b)
 Culpeper Bldg. & Supply Corp., Culpeper, Va. (45a)
 Culpepper & Edwards, Pelham, Ga. (10a)
 Culwell, Haskell, Constr. Co., Oklahoma City, Okla. (35a)
 Cummings, H. P., Constr. Co., Ware, Mass. (1)
 Cummings, S. A., Compton, Calif. (4d)
 Cummins, F. L., Constr. Co., Sioux Falls, S. Dak. (40a)
 Cummins, J. F., Burbank, Calif. (4d)
 Cump, Earl L., Chambersburg, Pa. (37a)
 Cunliff, Wm. H. & Nelson, Co., St. Louis, Mo. (24c)
 Cunningham, A. J., & Sons, Trenton, N. J. (20a)
 Cunningham Bros., Inc., Beloit, Wis. (48b)
 Cunningham, Chas. I., Co., Oakdale, Calif. (4b)
 Cunningham, F. W., & Sons, Portland, Me. (18a)
 Cunningham-Reis Co., Des Moines, Iowa (14a)
 Cunningham-Waters Constr. Co., Inc., Greer, S. C. (32a)
 Cuppels, F. J., Kingston, Pa. (37a)
 Curphy, Bill, Co., Des Moines, Iowa (14a)
 Curran, Kenneth E., Inc., Littleton, N. H. (28a)
 Currie, Thos. E., Co., The, Detroit, Mich. (21a) (21c)
 Curry, I. C., San Diego, Calif. (4c)
 Curtis Gravel Co., Spokane, Wash. (46c)
 Cutshall, J. M., & Son, Brazil, Ind. (13b)

D

- D & H Constr. Co., Dallas, Texas (42f)
 D & H Constr. Co., Kennewick, Wash. (46c)
 D-H Paving Co., Vancouver, Wash. (36a)
 Dack, K. C., Constr. Co., Milton-Freewater, Oreg. (36a)
 Dahl-Stedman Co., Chicago, Ill. (12a)
 Dahlberg, S. A., Mercer Island, Wash. (46a)
 Dahlgren & Brooks, Oklahoma City, Okla. (35b)
 Dahlgren Constr. Co., Seattle, Wash. (46b)
 Dahlman Constr. Co., Milwaukee, Wis. (48a)
 Dailey, H. A., Inc., St. Louis, Mo. (24c)
 Dailey, L. W., Constr. Co., Fort Wayne, Ind. (13a)
 Dale Engr. Co., Utica, N. Y. (31d)
 Dale, W. E., Constr. Co., Morganton, N. C. (32a)
 D'Alessio Constr. Co., Akron, Ohio (34a)
 D'Angelo Bros., Inc., Philadelphia, Pa. (37c)
 Daley Corp., San Diego, Calif. (4c)
 Daley, Morris, Burlingame, Calif. (4a)
 Dalon Contr. Co., Inc., Atlanta, Ga. (10a)
 Dalton Constr. Co., Joplin, Mo. (15a)
 Dalton, E. L., & Co., Ltd., Dallas, Texas (42j)
 Dan Bar Contr. Co., Inc., Syracuse, N. Y. (31d)
 Dangel's, David, Sons, Wilmington, Del. (7a)
 Daniel, Carroll, Constr. Co., Gainesville, Ga. (10a)
 Daniel Constr. Co., Inc., Birmingham, Ala. & Greenville, S. C. (1a) (32a)
 Daniel, John W., & Co., Inc., Danville, Va. (45a)
 Daniel Lumber Co., La Grange, Ga. (10a)
 Daniels Constr. Co., Lebanon, N. H. (28a)
 Daniels, E. L., Arlington, Va. (8a)
 Daniels, O. B., & Son, Seattle, Wash. (46b)
 Danis, B. G., Co., Dayton, Ohio (34b)
 Danville Constr. Co., Danville, Ill. (12c)
 Darby, E. B., Co., Pharr, Texas (42f)
 Darby, Mitchell, Constr. Co., McAllen, Texas (42j)
 Darin & Armstrong, Inc., Detroit, Mich. (21a) (21c)
 Darling, Herbert F., Williamsville, N. Y. (31a)
 Darlington Constr. Co., Inc., Darlington, S. C. (32a)
 Darner, Phil, Ottumwa, Iowa (14b)
 daRoz-Ribal, Inc., Dutch Flat, Calif. (4b)
 Darrrough, W. H., & Sons, Yuba City, Calif. (4b)
 Dasta, Sam, & Son Constr. Co., Kansas City, Mo. (24a)
 Date, H. G., Cordova, Alaska (50a)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 267). N—National Member (page 375). L—Local Member.

- Datema, Geo., & Sons, Grand Rapids, Mich. (21b)
- Daugette, F. R., Birmingham, Ala. (1a)
- Daugherty & Waters, Knoxville, Tenn. (41b)
- Daum-Donaldson Constr. Co., Phoenix, Ariz. (2a)
- Daum, R. J., Constr. Co., Inglewood, Calif. (4d) (27b)
- Davenport, A. W., & Assocs., Inc., Richmond, Va. (45a)
- Davey, Ben O., Las Vegas, Nev. (27b)
- Davey & Moen, Mason City, Iowa (14h)
- David, E. F., House Moving Co., St. Louis, Mo. (24c)
- Davidson, Forest R., Constr. Co., Norton, Kans. (15a)
- Davidson, Joe, Terrell, Texas (42f)
- Davidson, L. A., Lansing, Mich. (21c)
- Davidson, M. J., St. Louis, Mo. (24b)
- Davies, John R., & Son, Los Angeles, Calif. (4d)
- Davies, Keusder & Brown, Los Angeles, Calif. (4d)
- Davis, Ben H., Salt Lake City, Utah (43a)
- Davis, C. C., Constr. Co., New Cumberland, Pa. (37a)
- Davis Constr. Co., Hicksville, N. Y. (31d)
- Davis Constr. Co., Winterset, Iowa (14a)
- Davis Constr. Co., Corpus Christi, Texas (42i)
- Davis Constr. Co., Inc., Boonville, Mo. (24b)
- Davis Constr. Co., The, Baltimore, Md. (8a) (19a)
- Davis, F. B., Sons, Philadelphia, Pa. (37d)
- Davis, Felix A., Constr. Co., Houston, Texas (42d)
- Davis, O. B., Constr. Co., Chattanooga, Tenn. (41a)
- Davis & Platt, Inc., Washington, D. C. (8a)
- Davis, R. H., Stamps, Ark. (3a)
- Davis, T. H., Mobile, Ala. (1a)
- Davis, Wick, Rosengarten Co., Inc., Washington, D. C. (8a)
- Davison Constr. Co., Manchester, N. H. (28a)
- Davison, David W., Manchester, N. H. (28a)
- Dawkins, C. T., Tampa, Fla. (9c)
- Dawson Constr. Co., Ketchikan, Alaska (46a)
- Dawson, R. R., Bridge Co., Bloomfield, Ky. (16a)
- Day, Ralph C., Arcadia, Calif. (4d)
- Day & Zimmerman, Inc., Philadelphia, Pa. & Indian Head, Md. (8a) (37d)
- Deal, H. B., & Co., Inc., St. Louis, Mo. (24c)
- Deal Lumber Co., Laramie, Wyo. (49b)
- Dean Contr. Co., Minneapolis, Minn. (22a)
- Deane, B. C., & Gunther & Shirley Co., Van Nuys, Calif. (4d)
- DeAtley, F. H., & Co., Lewiston, Idaho (46c)
- DeBolt Constr. Co., Inc., Richmond, Ind. (13a)
- DeBuse Bros., Inc., Irvington, Nebr. (26a)
- DeBusk, Kelly S., Jr., Austin, Texas (42k)
- DeFelice, L. G., & Son, Inc., North Haven, Conn. (31d) (37e)
- Degerstrom, N. A., Spokane, Wash. (46c)
- deGivie-Dunham & O'Neil, Atlanta, Ga. (10a)
- Dehner, John, Inc., Fort Wayne, Ind. (13a)
- Deigaard & Preston Bldrs., Inc., Coral Gables, Fla. (9b)
- de Koning, Henry, Constr. Co., Ann Arbor, Mich. (21b)
- DeLashmutt Bros., Inc., Arlington, Va. (45a)
- Del Favero, Albert, Nashville, Tenn. (41d)
- DeLia, Elis G., & Co., New Hartford, N. Y. (31d)
- Delk, W. B., High Point, N. C. (32a)
- Dellinger, J. M., Inc., Corpus Christi, Texas (42f)
- DeLong, C. L., Nebraska City, Nebr. (26b)
- Delphia, John, Patterson, Calif. (4b)
- Delta Constr. Co., Rio Vista, Calif. (4b)
- Delta Constr. Co., Waycross, Ga. (10a)
- Delta Constr. Co., Hupewell, N. J. (29a)
- Delta Constr. Co., Inc., Durham, N. C. (32a)
- DeLuca Constr. Co., Akron, Ohio (34a)
- De Luca & Son, San Francisco, Calif. (4a)
- Delzer Constr. Co., Bismarck, N. Dak. (33a)
- Dement, Ivan, Amarillo, Texas (42f)
- Demmo Contr. Co., Inc., New Orleans, La. (17a)
- Demshar Bldrs. Co., Inc., Cleveland, Ohio (34c)
- Denison Constr. Co., Munising, Mich. (21c)
- Dennehy Constr. Co., Oklahoma City, Okla. (35a)
- Dennis, G. D., & Sons, Portland, Oreg. (36a)
- Dennis, V. R., Constr. Co., San Diego, Calif. (4c)
- Denny, Dale, Constr. Co., Anna, Ill. (12c)
- Denny, J. B., Jr., Norfolk, Va. (45a)
- Denton Constr. Co., Detroit, Mich. (21c)
- Denver Bldrs., Inc., Denver, Colo. (5a)
- Depew Paving Co., Inc., Depew, N. Y. (31d)
- DePolo, Angelo, Philadelphia, Pa. (37e)
- Derby Constr. Co., Inc., Louisville, Ky. (16b)
- DeRuyter Bros., Willmar, Minn. (22a)
- Desert Development, Inc., Las Vegas, Nev. (27b)
- de Silva, Oliver, Alameda, Calif. (4b)
- Des Moines Steel Co., Des Moines, Iowa (14a)
- De Stigter Bros., Sioux Center, Iowa (14b)
- Dethlefs & Hannon, Anniston, Ala. (1a)
- Detroit Asphalt Paving Co., Detroit, Mich. (21c)
- Detroit Concrete Prods. Corp., Detroit, Mich. (21c)
- Detweiler Bros., Inc., Twin Falls, Idaho (11a)
- Devine, R. P., Watseka, Ill. (12c)
- Devon Constr. Co., Los Angeles, Calif. (4d)
- DeVos Constr. Co., Lake Worth, Fla. (9c)
- Devoss Bros., Grand Island, Nebr. (26b)
- Dew Constr. Co., Tyler, Texas (42f)
- DeWitt Co., The, Tulsa, Okla. (35a)
- Diamond Engr. Co., Dallas, Texas (42j)
- DiAngelo, Alfred, Philadelphia, Pa. (37e)
- Di Biase, C., Co., Inc., Portland, Me. (18a)
- Dick Constr. Co., Pittsburgh, Pa. (37b)
- Dick, W. H., Constr. Co., Cleveland, Ohio (34c)
- Dickerson & Bowen, Brookhaven, Miss. (17e)
- Dickerson, G. W., San Antonio, Texas (42j)
- Dickerson, Inc., Monroe, N. C. (32a)
- Dickie Constr. Co., St. Louis, Mo. (24c)
- Dickson, Lige, Co., Tacoma, Wash. (46d)
- Diekema, Dick, Constr., Inc., Albert Lea, Minn. (22a)
- Dienst, Robt. J., Columbus, Ohio (34d)
- Diesch Constrs., Waterloo, Iowa (14a)
- Diesel Oil Sales Co., Seattle, Wash. (46a)
- Dieseth, John, Co., Fergus Falls, Minn. (22a) (33a)
- Dieterich, Clarence, Co., Reno, Nev. (27a)
- Dillard, J. E., Bessemer, Ala. (1a)
- Dillard, J. E., & Sons, Bessemer, Ala. (1a)
- Dillard, Wm. B., Constr. Co., Inc., Sylva, N. C. (32a)
- Dills, Bob, Inc., Fort Smith, Ark. (3a)
- Dilschneider, Ray M., Inc., St. Louis, Mo. (24c)
- Dilts, G. E., Mason City, Iowa (14a)
- Di Marco-Cicccone, Inc., White Plains, N. Y. (31d)
- Dimeo Constr. Co., Providence, R. I. (38a)
- Dimmitt Constr. Co., Shenandoah, Iowa (14b)
- Dimmitt & Taylor, Monrovia, Calif. (4d)
- Dinardo, Inc., Pittsburgh, Pa. (37c)
- Dinwiddie Constr. Co., Inc., San Francisco, Calif. (4a) (27a)
- Dioguardi, E. T., West Palm Beach, Fla. (9c)
- DiSabatino & Ranieri, Wilmington, Del. (7a)
- Ditmars-Dickmann-Pickens Constr. Co., Little Rock, Ark. & Muskogee, Okla. (3a) (35a)
- Divine Bros. Constr. Co., Central City, Ky. (16c)
- Dixon Bros. Co., Correctionville, Iowa (14a)
- Dixon Constr. Co., Fayetteville, N. C. (32a)
- Dixon, L. E., Co., San Gabriel, Calif. (4d)
- Dixon, S. M., Warren, Ark. (3a)
- Dobson Bros. Constr. Co., Lincoln, Nebr. (15b) (26b) (14a)
- Dobson & Robinson, Lincoln, Nebr. (26b)
- Dodds & Wedegartner, Inc., San Benito, Texas (42f)
- Dodge Constr. Co., Fallon, Nev. (27a)
- Doerfler Constr. Co., Oklahoma City, Okla. (42j)
- Dolph Constr. Co., Inc., Dallas, Texas (42a)
- Domenick, Frank, & Co., Inc., Newark, N. J. (29a)
- Donahoo, A. G., Contr. Co., Birmingham, Ala. (1a)
- Donahoo, H. N., Birmingham, Ala. (1a)
- Donahue, E. J., Salinas, Calif. (4a)
- Donatelli, Frank, Co., Inc., Pittsburgh, Pa. (37c)
- Dondlinger & Sons Constr. Co., Wichita, Kans. (15a)
- Donnellan, G. P., Atlanta, Ga. (10a)
- Doolittle Constr. Co., Seattle, Wash. (46a)
- Doran, A. L., Constr. Co., Peru, Ind. (13b)
- Dorland, E. H., Constr. Co., Salt Lake City, Utah (43a)
- Dotson, John R., Co., Chattanooga, Tenn. (41a)
- Dotterer Engr. Co., Charleston, S. C. (32a)
- Doty Bros., Bellflower, Calif. (4d)
- Dougherty, A. L., Co., Indianapolis, Ind. (13a) (31d)
- Dougherty, A. L., Overseas, Inc., Indianapolis, Ind. (13a)
- Dougherty, C. J., & Sons, Inc., Wilmington, Del. (7a)
- Dougherty-Liddell Constr. Co., Memphis, Tenn. (41c)
- Dougherty & Novotny Constr. Co., Casper, Wyo. (49b)
- Douglas Bros., Inc., Topeka, Kans. (15b)
- Douglas Constr. Co., Topeka, Kans. (15a)
- Douglas, Damon G., Co., Newark, N. J. (1c)
- Douglass Constr. Co., Aiken, S. C. (32a)
- Douglass, Joe W., San Jose, Calif. (4b)

A.G.C. DIRECTORY

Douglass & Woodhouse, Redwood City, Calif. (4b)
 Dow Acres, Houston, Texas (42d)
 Dowling Constr. Co., Williamstown, W. Va. (47a)
 Downer Co., Inc., Stockton, Calif. (4b)
 Doyle & Russell, Richmond, Va. (45a)
 Drainage Contrs., Inc., Dearborn, Mich. (21c)
 Drake, Donald M., Co., Portland, Oreg. (36a) (36b)
 Drake & Drake, Alamo, Texas (42a)
 Drake Puget Sound, Alaska, Div., Kodiak, Alaska (50a)
 Drape Constr. Co., Waverly, Iowa (14b)
 Dravo Corporation, The Contracting Division, Pittsburgh, Pa. (N) (37c) (37e) (47a)
 Dreher & Beaulieu, Richmond, Calif. (4b)
 Dreier & Son Constr. Co., Kansas City, Kans. (24a)
 Drescher Co., Milwaukee, Wis. (48a)
 Drew, Jas. H., Corp., Indianapolis, Ind. (13b)
 Driscoll, Geo. F., Co., New York City (31c)
 Driscoll, Jas. N., Co., Philadelphia, Pa. (37e)
 Driver, C. W., Inc., Los Angeles, Calif. (4d)
 Driver Constr. Co., The, Memphis, Tenn. (23a)
 Dudley, Max W., Riverton, Wyo. (49b)
 Dudley & Williams, Fayetteville, N. C. (32a)
 Duesenberg, E. M., Inc., Clear Lake, Iowa (14a)
 Duffey Constr. Co., Inc., Miami, Fla. (9b)
 Duffy Constr. Corp., Cleveland, Ohio (34c) (37c)
 Dugdale Constr. Co., Omaha, Nebr. (26b)
 Duinink Bros. & Gilchrist, Olivia, Minn. (22a)
 DuLaney, P. F., Washington, D. C. (8a)
 Dunbar Co., The, Cleveland, Ohio (34c)
 Duncan, Horace O., Fort Worth, Texas (42c)
 Duncanson-Harrelson Co., The, Richmond, Calif. (4b)
 Dunkin, W. R., & Son, Anderson Ind. (13b)
 Dunlap & Co., Inc., Columbus, Ind. (13b)
 Dunlop & Johnston, Inc., Cleveland Heights, Ohio (34c)
 Dunn-Baskin & Dunn, Memphis, Tenn. (41c)
 Dunn Constr. Co., Inc., Birmingham, Ala. (1a)
 Dunn Fuel & Lumber Co., Coalgate, Okla. (35b)
 Dunn, H. J., Black Top Surfacing Co., Winona, Minn. (22a)
 Dunn, J. E., Constr. Co., Kansas City, Mo. (24a)
 Dunn, J. M., & Son, Knoxville, Tenn. (41b)
 Dunn, Louis C., Inc., San Francisco & Los Angeles, Calif. (4a) (4d)
 Dunn, W. G., Greenville, N. C. (32a)
 Dunning, Chas. M., Constr. Co., Oklahoma City, Okla. (35a)
 Dupree, Henry G., Jacksonville, Fla. (9a)
 Durell, E. Clifford & Son, Inc., Philadelphia, Pa. (37d)
 Durrett, Jack, Keota, Okla. (35b)
 Dutcher Constr. Corp., Queenstown, Md. (31d)

Duval Engr. & Contr. Co., Jacksonville, Fla. (9a)
 Duvall, P. K., Inc., Logan, Iowa (14a)
 Dwan Constr. Co., Dorchester, Mass. (20b)
 Dwight Bldg. Co., The, New Haven, Conn. (6a)
 Dye & Mullings, Inc., Columbia, Miss. (23b)
 Dyer, A. L., & Sons, McBrides, Mich. (21c)
 Dyer Constr. Co., Tulsa, Okla. (35a)
 Dyer, Hal C., Dallas, Texas (42a) (42j)
 Dyson & Co., Pensacola, Fla. (9d)
 Dyson, F. A., Sanford, Fla. (9f)

E

E. & F. Constr. Co., Inc., The, Bridgeport, Conn. (6a)
 Eady, Geo. M., Co., Louisville, Ky. (16b)
 Eagle Contrs. of Utica, Inc., Utica, N. Y. (31d)
 Eargle, H. L. Constr. Co., Columbia, S. C. (32a)
 Earle & Merry, Inc., Rutland, Vt. (28a)
 Earley, Roy T., Co., Tacoma, Wash. (46d)
 Early, Fred J., Jr., Co., Inc., San Francisco & Torrance, Calif. (4a) (4d)
 East Carolina Constr. Co., Dunn, N. C. (32a)
 East Coast Constr. Co., Jacksonville, Fla. (9a)
 East Shore Asphalt Paving Co., Alpena, Mich. (21c)
 Eastern Constr. Co., Inc., Falls Church, Va. (8a)
 Eastern Pipeline Contrs., Dallas, Texas (42m)
 Easton Constr. Co., Ames, Iowa (14a)
 Eaton, L. W., Co., Inc., Baton Rouge, La. (17d)
 Eaton & Smith, San Francisco, Calif. (4b)
 Ebbe Constr. Co., Trenton, Mo. (24a)
 Ebeling, Robt. M., Constr. Co., Wheeling, W. Va. (47a)
 Eblen, Orville, Atlantic, Iowa (14a)
 Eby, Martin K., Constr. Co., Inc., Wichita, Kans. (15a)
 Eckert-Fair Constr. Co., Dallas, Texas (42a)
 Eckman, Chas. A., Co., Wilmington, Del. (7a)
 Eddleman, C. C., Philadelphia, Pa. (37d)
 Edelblut Constr. Co., Inc., West Palm Beach, Fla. (9e)
 Edgeworth Constr. Co., Corpus Christi, Texas (42i)
 Edison, L. W., Grand Rapids, Mich. (21c)
 Edlfsen-Weygandt Co., Canby, Oreg. (36a)
 Edmir Constr. Co., Inc., Charleston, W. Va. (47a)
 Edson, R. C., Storm Lake, Iowa (14b)
 Edwards, Jas. J., San Carlos, Calif. (4b)
 Edwardsville Constr. Co., Edwardsville, Ill. (12c)
 Ehorn, Liston, Red Bluff, Calif. (4a)
 Ehrhart & Arthur, Inc., Los Angeles, Calif. (4b) (4d)
 Eian & Ness, Fergus Falls, Minn. (22a)
 Eichley Corp., Pittsburgh, Pa. & Mountain View, Calif. (4b) (37b) (37c)
 Eickhof, Otto J., & Sons, Inc., Crookston, Minn. (22a)
 Eidemiller, Adam, Greensburg, Pa. (37c)
 Eiford Constr. Co., Bellingham, Wash. (46b)
 Eiland, Edw. H., Tallulah, La. (17g)
 Eiland, Jas. A., Jr., Bunkie, La. (17f)
 Eisele, John H., Co., Inc., New York City (31c)
 Eisenberg, Eugene R., Inc., Boston, Mass. (20b)
 Eisenhower, E., Corpus Christi, Texas (42i)
 Eisenhower Constr. Co., East Lansing, Mich. (21c)
 Eitze-Kitchens Constr. Co., Austin, Texas (42k)
 Ekdahl, Hilding, Ft. Dodge, Iowa (14a)
 Elam Constr. Co., St. Louis, Mo. (24c)
 Elder Constr. Co., Denver, Colo. (5a)
 Eldridge, Bob, Constr. Co., Kansas City, Kans. (24a)
 Eldridge Constr. Co., Enid, Okla. (35a)
 Elford, E., & Son, Inc., Columbus, Ohio (1c)
 Elia, Albert, Bldg. Co., Inc., Niagara Falls, N. Y. (31a)
 Ellard Constr. Co., Inc., Birmingham, Ala. (1a)
 Ell-Dorer Constr. Co., Irvington, N. J. (29a)
 Ellington Constr. Co., Cocoa, Fla. (9f)
 Ellington-Miller Co., Chicago, Ill. (12a)
 Elliott Bros., Inc., Perry, Okla. (35b)
 Elliott Bldg. Co., Hickory, N. C. (32a)
 Elliott, Hiram, Constr. Co., Kansas City, Mo. (24a)
 Elliott, R. H., Columbia, S. C. (32a)
 Elliott, W. J., McConnelville, Ohio (34d)
 Elliott, W. T., Spartanburg, S. C. (32a)
 Ellis, A. J., Constr. Co., Philadelphia, Pa. (37e)
 Ellis Constr. Co., Ephrata, Wash. (46c)
 Ellis, G. W., Constr. Co., North Hollywood, Calif. (4d)
 Ellis-Thompson Constr. Co., Inc., Tampa, Fla. (9c)
 Ellis, Wm. H., & Son Co., East Boston, Mass. (20a)
 Elmhurst Constr. Co., Inc., Corona, L. I., N. Y. (31d)
 Elmore Constr. Co., Catawba, N. C. (32a)
 El Rio Rock Co., Ventura, Calif. (4d)
 Elston Constr. Co., Rock Island, Ill. (12c)
 Elterich, Louis, Co., Port Angeles, Wash. (46a)
 Ely, I. J., Co., Larkspur, Calif. (4b)
 Elzinga & Volkers, Holland, Mich. (21b)
 Emerson, Sam W., Co., The, Cleveland, Ohio (34c)
 Emory & Richards, Knoxville, Tenn. (41b)
 Empire Constr. Co., Englewood, Colo. (5a)
 Empire Constr. Co., Portland, Oreg. (36a)
 Emco Concrete Cutting Co. of Los Angeles, Los Angeles, Calif. (4d)
 Emco of San Francisco, San Francisco, Calif. (4a) (4b)
 Emtman, Eric W., Riverside, Calif. (4d)
 Encon Corp., Los Angeles, Calif. (4d)
 Endebrock-White Co., Hilton Village, Va. (45a)
 Engineered Fixture Systems, Mountain View, Calif. (4b)
 Engineering Constr. Corp., Chicago, Ill. (12a)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 267). N—National Member (page 375). L—Local Member.

Engineering Constrs., Inc., Los Angeles, Calif. (4d)
 Engineers, Ltd., San Francisco & Los Angeles, Calif. (4a) (4d)
 Engineers Ltd. Mechanical Constr. Co., Los Angeles, Calif. (4d)
 Engineers Ltd. Pipeline Co., San Francisco, Hawthorne & El Cerrito, Calif. & Denver, Colo. (4b) (4d) (5b) (42m)
 England & Roth Constr. Co., Rapid City, S. Dak. (40a)
 English Constr. Co., Altavista, Va. (45a)
 English, Frank G., & Sons, Philadelphia, Pa. (37d)
 English, N. F., Constr. Co., Inc., Hutchinson, Kans. (15a)
 Entenman, Fred W., Inc., Toledo, Ohio (34e)
 Epperson & Co., Inc., Sumner, Iowa (14b)
 Erb, Harry, Co., Inc., Bala, Pa. (37e)
 Erbtraut & Summers, San Francisco, Calif. (4a)
 Erhart-Knopf Constr. Co., Inc., Louisville, Ky. (16b)
 Erickson, Al, & Co., Napa, Calif. (4b)
 Erickson Constr. Co., Assaria, Kans. (15b)
 Erickson Constr. Co., North Sacramento, Calif. (4a)
 Erickson, Oscar E., Richmond, Calif. (4b)
 Erickson Paving Co., Bellevue, Wash. (46a)
 Erickson, Phillips & Weisberg, Concord, Calif. (4b)
 Eriesson, Henry, Co., Chicago, Ill. (12a)
 Erie Contr. & Engr. Corp., Passaic, N. J. (29a)
 Erland & Blicke, Portland, Oreg. (36a)
 Ernest Constr. Co., Inc., Mobile, Ala. (1a)
 Ertz, John, Constr. Co., Oklahoma City, Okla. (35b)
 Esch Constr. Co., Cleveland, Ohio (34c)
 Escherich Bros., Inc., Los Angeles, Calif. (4d)
 Estervig, H., Huron, S. Dak. (40a)
 Etkin, A. J., Constr. Co., Oak Park, Mich. (21a)
 Evans, A. N., Columbus, Texas (42d)
 Evans Constr. Co., Springfield, Ill. (L)
 Evans Constr. Co., Inc., Cameron, S. C. (32a)
 Evans, Geo. H., & Co., Philadelphia, Pa. (37d)
 Evans, J. C., Austin, Texas (42k)
 Evans, S. E., Constr. Co., Fort Smith, Ark. (3a) (35b)
 Evans & Taylor, San Angelo, Texas (42p)
 Everds Bros., Algona, Iowa (14a)
 Everds Constr. Co., Estherville, Iowa (14a)
 Everetts & Kelso, Jamestown, N. Dak. (33a)
 Evert, S. H., Co., Inc., Bloomsburg, Pa. (37a)
 Ewell Engr. & Contr. Co., Lakeland, Fla. (9c)
 Excavators, Inc., Seattle, Wash. (46a)
 Eyring, E., & Sons Co., Baltimore, Md. (19a)

F

F & F Material & Constr. Co., New Iberia, La. (17f)
 F & S Contr. Co., Butte, Mont. (11a) (25a)
 Fadel, Norman L., North Hollywood, Calif. (4d)
 Fagre Constr. Co., Estherville, Iowa (14b)
 Fahey, John D., & Son, Inc., Waynesburg, Pa. (42m)

Falasco, Ted, Los Banos, Calif. (4a)
 Falk, L. R., St. Ansgar, Iowa (14a)
 Famularo, A. H., Santa Ana, Calif. (4d)
 Farina Bros., Newton, Mass. (20b)
 Farish, Robt. A., San Francisco, Calif. (4b)
 Farmer & Godfrey, Phoenix, Ariz. (2a)
 Farmer, M. C., Mobile, Ala. (23c)
 Farnsworth & Chambers Co., Inc., Jackson, Miss.; Houston, Texas & New Orleans, La. (17a) (17e) (23b) (42d) (42f)
 Farnsworth, R. P., & Co., Inc., Warner Robins, Ga., New Orleans, La. & Beaumont, Texas (10a) (17a) (17e) (42h)
 Farr, R. T., Belton, Texas (42f)
 Farrell Contr. Co., St. Paul, Minn. (22a)
 Farrell, Jos. R., Philadelphia, Pa. (37d)
 Farrow, E. E., Co., Dallas, Texas (42j)
 Farwest Constr. Co., Seattle, Wash. (46b)
 Fatout Bldg. Co., The, Indianapolis, Ind. (13b)
 Fauber Constr. Co., Inc., Lafayette, Ind. (13a)
 Fauber, L. Walker, Co., Ashland, Ohio (34d)
 Faulkner Constr. Co., Ferndale, Mich. (21a)
 Faulkner, Thos. W., Jr., Norristown, Pa. (37e)
 Favret, Lionel F., Co., Inc., New Orleans, La. (17a)
 Favrot, Gervais F., Co., New Orleans, La. (17a)
 Fay Improvement Co., San Francisco, Calif. (4b)
 Fazio, Walter E., Sacramento, Calif. (4b)
 Feast, Leslie A., Paducah, Ky. (16c)
 Federal Constrs., Inc., Chicago, Ill. (12a)
 Feeney Constr. Co., St. Joseph, Mo. (24b)
 Fegles Constr. Co., Ltd., Minneapolis, Minn. (17a) (22a)
 Feigl Constr. Corp., Evansville, Ind. (12c) (13a) (13c)
 Fell & Anton, Waterloo, Iowa (14b)
 Feller, L. M., Co., Rochester, Minn. (22a)
 Felmley-Dickerson Co., Bloomington, Ill. (L)
 Fenton Constr. Co., Ashland, Ohio (34d)
 Ferguson Bros., Oakland, Calif. (4b)
 Ferguson Corp., Hampton, Va. (45a)
 Ferguson-Diehl, Inc., Jefferson, Iowa (14a)
 Ferguson & Edmondson Co., Pittsburgh, Pa. (37c) (47a)
 Ferguson, H. K., Co., The, Cleveland, Ohio & Houston, Texas (34c) (42d)
 Ferguson, H. S., Co., Seattle, Wash. (46b)
 Ferrante, Anthony, & Son, Inc., Bernardsville, N. J. (29a)
 Ferris Co., The, Mason, Mich. (21c)
 Ferro Concrete Constr. Co., Cincinnati, Ohio (34b)
 Ferry, Peter L., & Son, Glendale, Calif. (4d)
 Fessler, Frank, Salina, Kans. (15a)
 Feutz, Frank C., Co., Paris, Ill. (12c)
 Field, C. O., Co., Minneapolis, Minn. (22a)
 Fielding & Shepley, Inc., St. Paul, Minn. (22a)
 Fields, Geo. A., Lubbock, Texas (42p)
 Fielland, C. A., Inc., Tampa, Fla. (9c)
 Findorff, J. H., & Son, Inc., Madison, Wis. (48b)
 Fine, W. M., Spartanburg, S. C. (32a)
 Finson & Oddstad, Inc., Daly City, Calif. (4a)
 Fiorito Bros., Seattle, Wash. (36a) (46a)

Fiorito, N., Co., Seattle, Wash. (46a)
 Fischer Constr. Co., Farmington, Minn. (22a)
 Fisher, Alfred P., San Francisco, Calif. (4a)
 Fisher, Claude, Co., Ltd., Los Angeles, Calif. (4d)
 Fisher Constr. Co., Houston, Texas (42d)
 Fisher Contr. Co., Phoenix, Ariz. (2a)
 Fisher-DeVore Constr. Co., Cincinnati, Ohio (34b)
 Fisher, J. M., Norman, Okla. (35b)
 Fisher, L. S., Woodward, Okla. (35b)
 Fisher, O. B., & Sons, Logan, W. Va. (47a)
 Fiske-Carter Constr. Co., Spartanburg & Greenville, S. C. (32a)
 Fitch-Eva Co., The, Howell, Mich. (21c)
 Fitchett, Leslie, & Son, Merced, Calif. (4a)
 Fitzgerald Bros. Constr. Co., Inc., Troy, N. Y. (31d)
 Fitzmaurice, J. H., Oakland, Calif. (4a)
 FitzSimmons & Connell Dredge & Dock Co., Chicago, Ill. (12a)
 Flagler Co., The, Atlanta, Ga. (10a)
 Flanders Constr. Co., Houston, Texas (42d)
 Fleisher Engr. & Constr. Co., Minneapolis, Minn. (22a)
 Fleming Co., Philadelphia, Pa. (37d)
 Fleming, Edw. M., Constr. Co., Miami, Fla. (9b)
 Fleming & Kilgo Constr. Co., East Alton, Ill. (12c)
 Flenniken Constr. Co., Shreveport, La. (17e)
 Fletemeyer, F. R., Detroit, Mich. (21a)
 Flett Constr. Co., Kansas City, Mo. (24a)
 Flickinger, D. A., Phoenix, Ariz. (2a)
 Flinn Paving Co., Omaha, Nebr. (14a)
 Flint Bros. Constr. Co., Jackson, Miss. (23b)
 Florala Constr. Co., Warrington, Fla. (9d)
 Fluor Bros. Constr. Co., Oshkosh, Wis. (48b)
 Fluor Corp., Ltd., The, Los Angeles, Calif. (4d)
 Flynn Contr. Co., Detroit, Mich. (21c)
 Flynn, Jos. P., Providence, R. I. (38a)
 Foard, Edison, Charlotte, N. C. (32a)
 Foard, Ernest, Charlotte, N. C. (32a)
 Focht, L. H., & Son, Inc., Reading, Pa. (37a)
 Fogel Contrs., Inc., Kansas City, Mo. (24a)
 Fogelberg, O. A., Lafayette, Calif. (4b)
 Foley Brothers, Inc., St. Paul Minn. (22a)
 Foley Brothers, Inc., Pleasantville, N. Y. (N)
 Foley Bros., Inc., Ruth, Nev. (27a)
 Foley Constr. Co., Albert Lea, Minn. (22a)
 Foley Constr. Co., Cincinnati, Ohio (34b)
 Foley & Krueger, Inc., Redwood City, Calif. (4b)
 Foley, Robt. E., Constr. Corp., Binghamton, N. Y. (31d)
 Foley & Williams, Tyler, Texas (42f)
 Folsom Constr. Co., Denver, Colo. (5a)
 Fontana, D. M., Wilmington, Del. (7a)
 Forbes Constr. Co., Inc., Huntington, W. Va. (47a)
 Forcum-James Co., Baton Rouge, La. & Dyersburg, Tenn. (N) (17e) (23a)
 Ford, Bacon & Davis Construction Corp., Monroe, La. & New York, N. Y. (N) (17g)
 Ford Constr. Co., Janesville, Wis. (48b)
 Ford, E. Paul, San Diego, Calif. (4c)
 Ford, R. W., Marion, Ill. (12c)
 Forde, E. A., Co., San Anselmo, Calif. (4b)

A.G.C. DIRECTORY

- Fordice Constr. Co., Memphis, Tenn. (23a)
 Foreman, C. S., Co., North Kansas City, Mo. (24b) (42m)
 Forest City Improvement Co., Forest City, Iowa (14b)
 Forgy Constr. Co., San Antonio, Texas (42e)
 Fors, Carl S., Co., Murray, Utah (43a)
 Forsgren Bros., Fort Smith, Ark. (3a)
 Forster, A. J., Paola, Kans. (15b)
 Fortuna Constr. Co., Fortuna, Calif. (4b)
 Fortunato, Rocco, & Sons, Youngstown, Ohio (34f)
 Foshee, D. O., Inc., Jacksonville, Fla. (9a)
 Foss, C. R., Inc., Anchorage, Alaska (50a)
 Foster & Bamford, Inc., Concord, N. H. (28a)
 Foster Bros., Port Arthur, Texas (42b)
 Foster Constr. Co., Santa Fe, N. Mex. (30b)
 Foster & Creighton Co., Nashville & Knoxville, Tenn. (41b) (41d)
 Foster, H. B., Port Arthur, Texas (42b)
 Foster, J. M., & Co., Gary, Ind. (13b)
 Foster, Karl B., Flint, Mich. (21b)
 Foster & McHarg, Riverside, Calif. (4d)
 Foster-Smetana Co., Omaha, Nebr. (26a)
 Foster, W. A., Constr. Co., Burlington, N. C. (32a)
 Four Bros., Inc., Sweet Home, Ark. (3a)
 Fowler, C. Wayne, Pipe Line Contr., Inc., Cotton Valley, La. (42m)
 Fowler-Jones Constr. Co., Winston-Salem, N. C. (32a)
 Fowler-Venrath Constr. Co., Duluth, Minn. (22a)
 Fox, A. T., North Bend, Oreg. (36a)
 Fox, Delton T., Bridgeton, N. J. (29a)
 Fox & Fox, St. Petersburg, Fla. (9c)
 Fox, H. H., Constr. Co., Kansas City, Mo. (24a)
 Fox Valley Constr. Co., Appleton, Wts. (21c)
 France, Geo. E., Inc., Visalia, Calif. (4b)
 Francies Constr. Co., Santa Rosa, Calif. (4b)
 Frank, D. T., Constr. Co., East Lansing, Mich. (21c)
 Frank, J. S., Salina, Kans. (15a)
 Frankenfeld Constr. Co., Winfield, Kans. (15a)
 Franklin Asphalt Co., Benton, Ill. (12c)
 Franklin Contr. Co., Newark, N. J. (29a)
 Frantz Constr. Co., The, Baltimore, Md. (19a)
 Frapaul Constr. Co., Rochelle Park, N. J. (29a)
 Fraser, Carlisle G., St. Paul, Minn. (22a)
 Fraser Constr. Co., Inc., Fort Smith, Ark. (3a)
 Frazier-Davis Constr. Co., St. Louis, Mo. (24c)
 Frederickson-Parks, Inc., Oklahoma City, Okla. (35a)
 Fredman, J. A., Pontiac, Mich. (21a)
 Fredrickson Bros., Emeryville, Calif. (4b)
 Fredrickson & Watson Constr. Co., Oakland, Calif. (4b)
 Freeland Constr. Co., Pittsburgh, Pa. (37c)
 Freeland, Jack, & Co., San Antonio, Texas (42f)
 Freeman Constr. Co., Inc., Spring Valley, Minn. (22a)
 Freeman, Jesse H., Inc., Moline, Ill. (12c)
 Freeman & Jones, Inc., Cleveland, Ohio (34c)
 Freeman Paving Co., Palo Alto, Calif. (4b)
 Freethy, Elmer J., El Cerrito, Calif. (4a)
 Freeto Constr. Co., Inc., Pittsburg, Kans. (15b)
 Freigang Constr. Co., Tacoma, Wash. (46d)
 French, Geo., Jr., Stockton, Calif. (4b)
 Fretz Constr. Co., Houston, Texas (42d)
 Fricke, H. C., Alliance, Nebr. (26a)
 Fridholm Constr. Co., St. Paul, Minn. (22a)
 Friedman Constr. Co., Fort Worth, Texas (42c)
 Friel, Edw. B., Inc., Washington, D. C. (8a)
 Frione, D. V., & Co., Inc., New Haven, Conn. (31d)
 Frisbie, J. W., Kansas City, Mo. (15b)
 Frisinger, John H., Inc., Ann Arbor, Mich. (21c)
 Frisinger, Max R., Ann Arbor, Mich. (21c)
 Fritz Constr. Co., Madison, Wis. (48b)
 Fritz, W. G., Co., Inc., West Orange, N. J. (29a)
 Frost Constr. Co., Hydro, Okla. (35b)
 Frouge Constr. Co., Inc., Bridgeport, Conn. (6a)
 Frowine Constr. Corp., Portsmouth, Ohio (34d)
 Fruin-Colnon Contr. Co., St. Louis, Mo. (12d) (24c)
 Fry, Dean, Constr. Co., Davenport, Iowa (14b)
 Fry & Kain, Lansing, Mich. (21c)
 Frysinger Constr. Co., Columbus, Ohio (34d)
 Fuel Economy Engr. Co., St. Paul, Minn. (22a)
 Fuess, C. A., & Co., Dallas, Texas (42a)
 Fuglevand, Chris, & Son, Havre, Mont. (25b)
 Fulghum Contr. Corp., Harrisburg, Pa. (42m)
 Fulghum, Geo. A., & Co., Memphis, Tenn. (41c)
 Fulghum, Kenneth, Inc., Pensacola, Fla. (9d)
 Fulk & Needham, Pilot Mountain, N. C. (32a)
 Fullen Constr. Co., Scottsbluff, Nebr. (26a)
 Fuller-Davies Co., Frankfort, Ky. (16a)
 Fuller, George A., Company, New York, N. Y.; Chicago, Ill.; Boston, Mass.; Detroit, Mich.; Washington, D. C.; Los Angeles, Calif., & Pittsburgh, Pa. (N) (4d) (12a) (21a) (31c) (37b)
 Fuller, Geo. L., Constr. Co., Augusta, Ga. (10a)
 Fuller Paving Constr. Co., Chicago, Ill. (12c)
 Fullerton & Hussey, Oklahoma City, Okla. (35b)
 Fullmer Bros., Salt Lake, Utah (43a)
 Fulton, E. A., Boise, Idaho (11a)
 Fulton, I. G., Anchorage, Alaska (50a)
 Fulton, R. H., & Co., Lubbock, Texas (42m)
 Fulton, W. D., Constr. Co., Oklahoma City, Okla. (35b)
 Funderburk Constr. Co., Depoe Bay & Sutherlin, Oreg. (36a) (46a)
 Fuqua, Fred B., Lynchburg, Va. (45a)
 Furman, Roy E., Waynesburg, Pa. (37c)
 Furr, D. O., Constr. Co., Shreveport, La. (17b)
 Furrer, John A., Millbrae, Calif. (4b)
 Fusco-Amatruda Co., The, New Haven, Conn. (6a)
 Fusco, J. R., Inc., Montclair, N. J. (29a)
- G**
- G. A. V. Bldrs., Moundsville, W. Va. (47a)
 G-I Constr. Co., Meeker, Okla. (35b)
 G & K Constr. Co., Pascagoula, Miss. (23c)
 G. W. L. Constr. Co., North Little Rock, Ark. (3a)
 Gaasland Co., Inc., Bellingham, Wash. (46b)
 Gaddie, R. E., Inc., Bowling Green, Ky. (16a)
 Gaines Bros., Miami, Okla. (35b)
 Gallagher Asphalt Co., Inc., Thornton, Ill. (12c)
 Gallagher & Burk, Inc., Oakland, Calif. (4b)
 Gallant, C. W., Inc., Charlotte, N. C. (32a)
 Gallespie Constr. Co., Jacksonville, Fla. (9a)
 Gallimore, L. B., Greensboro, N. C. (32a)
 Gamble Constr. Co., St. Louis, Mo. (24c)
 Games, Earl E., Reno, Nev. (27a)
 Ganley, Ernest M., Co., Inc., Minneapolis, Minn. (22a)
 Ganley, Howard, Inc., St. Paul, Minn. (22a)
 Gann Constr. Co., Atlanta, Ga. (10a)
 Ganschietz, Ferd, East St. Louis, Ill. (12d)
 Ganther, Ben B., Co., Oshkosh, Wis. (48b)
 Garavaglia, Louis, Centerline, Mich. (21c)
 Gardner Constr. Co., Glenwood Springs, Colo. (5b)
 Gardner, Elmer C., Inc., Houston, Texas (42j)
 Gardner, Fred C., Kinston, N. C. (32a)
 Gardner, W. W., Salt Lake City, Utah (43a)
 Garff, Mark B., Ryberg & Garff, Salt Lake City, Utah (43a)
 Garmer & Stiles Co., Des Moines, Iowa (14b)
 Garmong, C. H., & Son, Terre Haute, Ind. (13b)
 Garms, Grady, Little Rock, Ark. (3a)
 Garnier Constr. Co., Puente, Calif. (4d)
 Garon Constr. Co., Inc., Manchester, N. H. (28a)
 Garriott, Jay A., Bedford, Ind. (13b)
 Garrison Spillway Constr., Riverdale, N. Dak. (33a)
 Gaspard Constr. Co., The, Cleveland, Ohio (34c)
 Gast Constr. Co., Warsaw, Ind. (13a)
 Gaston & Sepich, Gulfport, Miss. (23c)
 Gates, E. L., Inc., Salem, Oreg. (36a)
 Gates, John R., Fort Wayne, Ind. (13a)
 Gavlik Constr. Co., Glenwillard, Pa. (37c)
 Gaylord Constr. Co., Houston, Texas (42f)
 Gebhard-Berghammer, Inc., Milwaukee, Wis. (48a)
 Geer-Maurer Constr. Co., Grand Island, Nebr. (26a)
 Geery, Glenn, Inc., Missoula, Mont. (25a)
 Gehring, C. I., Bartlesville, Okla. (35a)
 Gehring, F. P., Atchison, Kans. (15a)
 Gehron, Jacob, Co., Inc., The, Williamsport, Pa. (37a)
 Geiger, E. W., Inc., Topeka, Kans. (15b)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 267). N—National Member (page 375). L—Local Member.

- Gellatly Constr. Co., The, Bridgeport, Conn. (6a)
- Gem Contr. & Paving, Inc., Quincy, Ill. (12c)
- General Asphalt Paving Co., Philadelphia, Pa. (37e)
- General Constr. Co., Shreveport, La. (17b)
- General Constr. Co., Columbia, S. C. (32a)
- General Constr. Co., Fort Worth, Texas (42f)
- General Construction Company, Seattle, Wash. & Portland, Oreg. (N) (36a) (46a) (46b)
- General Constr. Co. of Michigan City, Inc., Michigan City, Ind. (13b)
- General Constr. Corp., Oklahoma City, Okla. (35b)
- General Contr. Co., Charleston, S. C. (32a)
- General Contr. Co., Inc., Granite City, Ill. (12d)
- General Engr. Co., Topeka, Kans. (15b)
- General Engr. Corp., Florence, S. C. (32a)
- General Paving Co., Champaign, Ill. (12c)
- General Paving Constr. Co., Grand Rapids, Mich. (21c)
- General Service, Inc., St. Paul, Minn. (22a)
- George Constr. Co., Houston, Texas (42j)
- George, Frank M., Inc., Houston, Texas (42d)
- George, Henry, & Sons, Spokane, Wash. (46c)
- George, J. D., Co., Waco, Texas (42j)
- George & Lynch Co., Wilmington, Del. (7a)
- Georgia Southern Constr. Co., Macon, Ga. (10a)
- Gerard Constr. Co., Lewiston, Me. (18a)
- Gerhold Co., Columbus, Nebr. (26b)
- Germer, Abbott & Waldron Constr. Co., Tremont, Utah (43a)
- Gerometta Constr. Co., Gary, Ind. (13b)
- Gerwick, Ben C., Inc., San Francisco, Calif. & Anchorage, Alaska (4b) (4d) (50a)
- GESCO, Inc., Louisiana, Mo. (24b)
- Gessler Constr. Co., Inc., Syracuse, N. Y. (31d)
- Gethmann Constr. Co., Inc., Gladbrook, Iowa (14b)
- Getman Bros., South Haven, Mich. (21c)
- Geupel, Carl M., Constr. Co., Indianapolis, Ind. (13b)
- Geyer, Harold C., Monterey, Calif. (4a)
- Ghilotti Bros., Inc., San Rafael, Calif. (4b)
- Gibbons & Reed Co., Salt Lake City, Utah & Cascade Locks, Oreg. (36a) (43a)
- Gibson, John H., Durham, N. C. (32a)
- Gibson & Roberts, Yardley, Wash. (46c)
- Gibson, W. B. Co., Inc., The, Warren, Ohio (34f)
- Giem, Seth E., & Assocs., Memphis, Tenn. (41c)
- Giertsen, Walter D., Co., Minneapolis, Minn. (22a)
- Gifford-Hill & Co., Inc., Dallas, Texas (42f)
- Gilbane Bldg. Co., Providence, R. I. (38a)
- Gilbert Bros., Monroe, La. (17g)
- Gilbert Engr. Co., Inc., Statesville, N. C. (32a)
- Gilbert, F. O., Contr., Inc., Bossier City, La. (17b)
- Gilbert & Shields Constrs., Inc., Tampa, Fla. (9c)
- Gilbreath, Chas. H., Alice, Texas (42i)
- Gilchrist Constr. Co., Las Cruces, N. Mex. (30b)
- Gill Constr. Co., Bakersfield, Calif. (4d)
- Gill, Harry, Co., Philadelphia, Pa. (37d)
- Gilliland Constr. Co., Alpena, Mich. (21c)
- Gillisse, John & Paul, Grandville, Mich. (21c)
- Gillmore-Olson Co., The, Cleveland, Ohio (34c)
- Gillotti Constr. Co., Des Moines, Iowa (14a)
- Gilmore, Chas. G., Asphalt Prods., Inc., Anna, Ill. (12c)
- Gilmore Constr. Co., Omaha, Nebr. (26a)
- Gilo, Cosmo, Lowell, Oreg. (36a)
- Gilpatrick, M. J., Constr. Co., Riverton, Wyo. (49a)
- Gilstrap Constr. Co., Lubbock, Texas (42p)
- Giordano Constr. Co., Branford, Conn. (6a)
- Girvin & White, Jacksonville, Fla. (9a)
- Gist, John C., Sacramento, Calif. (4b)
- Giusto, B. L., San Francisco, Calif. (4a)
- Gjellefeld Constr. Co., Forest City, Iowa (14a)
- Glade Constr. Co., Fort Worth, Texas (42j)
- Glaser, A. J., Co., Inc., Muncie, Ind. (13b)
- Glasgow, Samuel, Glenside, Pa. (37e)
- Glass Constr. Co., Belvidere, Ill. (12b)
- Glaze Construction Company, St. Joseph, Mo. (L)
- Glenn Constr. Co., Charlotte, N. C. (32a)
- Glennoy Co., Indianapolis, Ind. (13b)
- Glissen, Til, & Co., West Palm Beach, Fla. (9e)
- Globe Constr. Co., Wichita, Kans. (15b)
- Globe Constr. Co., Kalamazoo, Mich. (21c)
- Globe Constr. Co., Inc., New Orleans, La. (17a)
- Glover, Geo. J., Co., Inc., New Orleans, La. (17a)
- Godbersen-Smith Constr. Co., Ida Grove, Iowa (14a)
- Godwin, John, San Diego, Calif. (4c)
- Godwin, O. W., Inc., Dunn, N. C. (32a)
- Goetting, E., & Sons, Tacoma, Wash. (46d)
- Goetz & Brennan, Seattle, Wash. (46a)
- Goldberg, A. N., Inc., New Orleans, La. (17a)
- Golden, M. H., Constr. Co., San Diego, Calif. (4c)
- Golder Constr. Co., Inc., Philadelphia, Pa. (37d) (37e)
- Goldman, Perry J., Constr. Co., Philadelphia, Pa. (37d)
- Goldston Co., The, Corpus Christi, Texas (42i)
- Gooch, J. Y., Co., Inc., Miami, Fla. (9b)
- Good Roads Engr. & Contr. Co., Inc., Wamtagh, N. Y. (31d)
- Goode Constr. Corp., Charlotte, N. C. (32a)
- Goode & Schroeder, Inc., Los Angeles, Calif. (4d)
- Goodenough, Wells P., Inc., Palo Alto, Calif. (4a)
- Goodfellow Bros., Inc., Wenatchee, Wash. (46a)
- Gooding, O. E., & Co., Ypsilanti, Mich. (21c)
- Goodwin, C. J., Pittsburgh, Pa. (37b)
- Goodwin, Carl, & Sons, Allegan, Mich. (21c)
- Goodwin Constr. Co., Blackfoot, Idaho (11a)
- Goodwin Constr. Co., Inc., Danville, Ind. (13a)
- Gordon Constr. Co., The, Denver, Colo. (5b)
- Gorman Constr. Co., Flemingsburg, Ky. (16a)
- Goss, Jos. H., Newark, Ohio (34d)
- Goss, Wm. R., Co., Chicago, Ill. (12a)
- Gossen Constr. Co., Lafayette, La. (17f)
- Gould Constr. Co., The, Davenport, Iowa & San Carlos, Calif. (4a) (14a)
- Gould & Cross, Grand Rapids, Mich. & Wilmington, Calif. (4d) (21c)
- Goulter, K. L., & Co., North Bend, Wash. (36a)
- Govan, Hugh, Port Angeles, Wash. (46a)
- Grabau, R. H., Constr. Co., Boone, Iowa (14b)
- Grabbe, H. A., Constr. Co., Alton, Ill. (12d)
- Gradle Bros., Inc., Carmel, Ind. (13a)
- Grady Bros., Inc., Indianapolis, Ind. (13a)
- Graft, E. W., Constr. Co., Saginaw, Mich. (21c)
- Gragg, O. R., Henryetta, Okla. (35b)
- Graham, Angus W., Inc., Miami, Fla. (9b)
- Graham Bros., Richmond, Va. (45a)
- Graham, Harry B., Co., Charlottesville, Va. (45a)
- Graham, J. F., Tacoma, Wash. (46d)
- Graham & Jensen, Merced, Calif. (4a)
- Graham, W. E., & Sons, Cleveland, N. C. (32a) (47a)
- Grand Rapids Asphalt Paving Co., Grand Rapids, Mich. (21c)
- Grandview Constr. Corp., The, Mt. Vernon, N. Y. (31d)
- Grandy, E. F., Laguna Beach, Calif. (4d)
- Granger Contr. Co., Inc., Worcester, Mass. (20b)
- Granite Bituminous Paving Co., St. Louis, Mo. (12c) (24b) (24c)
- Granite Constr. Co., Watonsville, Calif. (4b) (4d)
- Grannis & Sloan, Inc., Fayetteville, N. C. (32a)
- Grant Constr. Co., Coeur d'Alene, Idaho (46c)
- Grantwood Contr. Co., St. Louis, Mo. (24b) (24c)
- Graven, Leland R., Springfield, Mo. (24b)
- Graves Bros. Co., Melvin, Iowa (14a)
- Graves, Donald, San Jose, Calif. (4b)
- Gravier & Harper, Alexandria, La. (17f)
- Gray, C. E., Emporia, Kans. (15b)
- Gray Constr. Co., Laurel, Miss. (23c)
- Gray, W. A., Constr. Co., Shreveport, La. (17b)
- Grays Harbor Constr. Co., Aberdeen, Wash. (46a)
- Great Lakes Dredge & Dock Co., New Orleans, La. (23a)
- Gredvig, Maurice, Yakima, Wash. (46a)
- Green, B. A., Constr. Co., Inc., Lawrence, Kans. (15a)
- Green, Chas. A., & Son, Inc., Appleton, Wis. (48b)
- Green Constr. Co., Des Moines, Iowa (14a)
- Green, Edw., Co., Los Angeles, Calif. (4d)
- Green, Edwin M., Inc., Miami, Fla. (9b)
- Green, Geo. B., San Lorenzo, Calif. (4a)
- Green Island Constr. Co., Watervliet, N. Y. (31d)
- Green, Jas. E., Johnson City, Tenn. (41e)
- Green, Mont J., Manhattan, Kans. (15a)
- Green, Ralph, & W. L. Groesbeck, Des Moines, Iowa & Lincoln, Nebr. (14a) (26b)

A.G.C. DIRECTORY

- Green, T. H., Durham, N. C. (32a)
 Greene & Gust Co., Chicago, Ill. (12a)
 Greene, Wm. H., Westbury, N. Y. (31d)
 Greenhut Constr. Co., Pensacola, Fla. (9d)
 Greenwood, Hal, Inc., Long Beach, Calif. (4d)
 Greer Bros., Shreveport, La. (17b)
 Gregory, Artie, Little Rock, Ark. (3a)
 Gregory, J. M., Raleigh, N. C. (32a)
 Gremillion, A. A., & Co., Alexandria, La. (17f)
 Gremillion Bros., Alexandria, La. (17f)
 Grendahl, H. C., Spokane, Wash. (46c)
 Gresham Constr. Co., Santa Clara, Calif. (4a)
 Gresham, E. T., Co., Inc., Norfolk, Va. (45a)
 Gridley Constr. Co., Oxnard, Calif. (4d)
 Griesemer Constr. Co., Springfield, Mo. (24b)
 Griffin Constr. Co., Atlanta, Ga. (10a)
 Griffin Constr. Co., Merriam, Kans. (15b)
 Griffin, John F., Co., Cambridge, Mass. (20b)
 Griffith Co., Los Angeles & San Diego, Calif. (4c) (4d)
 Griffith & Moorhead, Atlanta, Ga. (10a)
 Griffiths, John, & Son Constr. Co., Chicago, Ill. (12a)
 Griggs, Raymond, Clovis, N. Mex. (30b)
 Grimshaw, W. R., Co., Tulsa, Okla. (35a)
 Groneman & Co., Provo, Utah (43a)
 Groomes Constr. Co., Cheswick, Pa. (37b)
 Grosshans & Petersen, Inc., Marysville, Kans. (15b) (26b)
 Grosz, M. J., Constr. Co., Ft. Dodge, Iowa (14b)
 Grove, Cecil B., San Diego, Calif. (4c)
 Grove Shepherd Wilson & Kruege, Inc., New York City; Washington, D. C.; Anchorage, Alaska & Seattle, Wash. (8a) (31c) (46a) (50a)
 Groves, Lundin & Cox, Inc., Minneapolis, Minn. (22a)
 Groves, S. J., & Sons Co., Springfield, Ill.; Minneapolis, Minn.; Woodbridge, N. J.; New York, N. Y. & Portland, Pa. (12c) (22a) (24b) (25a) (29a) (31d) (33a) (37c) (37e)
 Grundeman Constr. Co., Holton, Kans. (15b)
 Grundeman, Ed, Topeka, Kans. (15b)
 Guerin & Jacobus, Inc., Melbourne, Fla. (9f)
 Guest, C. M., & Sons, Anderson, S. C. & Greensboro, N. C. (32a)
 Guillaume, C. D., Constr. Co., Gulf Breeze, Fla. (9d)
 Guion, A. H., & Co., Charlotte, N. C. (32a)
 Gulf Bitulithic Co., Houston, Texas (42f)
 Gulf Constr. Co., Mobile, Ala. (1a)
 Gull Contr. Co., Inc., Flushing, L. I., N. Y. (31d)
 Gund Graham Co., Freeport, Ill. (12c)
 Gunite Concrete & Constr. Co., Houston, Texas (42d)
 Gunn Constr. Co., Los Angeles, Calif. (4d)
 Gunnell Constr. Co., Inc., Washington, D. C. (8a)
 Gunsaulus, L. H., & Son, Kendallville, Ind. (13a)
 Gunther, H. H., Constr. Co., Galesburg, Ill. (12c)
 Gunther & Shirley Co., Sherman Oaks, Calif. (4d)
 Gurtler, Hebert & Co., Inc., New Orleans, La. (17a)
 Gustafson, Dave, & Co., Inc., Sioux Falls, S. Dak. (40a)
 Gustafson, Frank N., & Sons, Inc., Providence, R. I. (38a)
 Gustafson, S. E., Constr. Co., Sioux Falls, S. Dak. (40a)
 Guth & Schmidt, Sacramento, Calif. (4a)
 Gutmann, John B., Constr. Co., Inc., St. Louis, Mo. (24c)
- H**
- H & H Constr. & Supply Co., Thomasville, Ga. (10a)
 H & H Materials Co., Oklahoma City, Okla. (35b)
 H. & M. Equipment Co., Inc., Hastings, Nebr. (26b)
 HRC Constr. Co., Inkster, Mich. (21a)
 Haagensoy & Tranby, McIntosh, Minn. (22a)
 Haake, Floyd, Santa Fe, N. Mex. (5b) (30a)
 Haas, E. T., Co., Belmont, Calif. (4b)
 Haas & Haynie, East Los Angeles & San Francisco, Calif. (4b) (4d)
 Haase Constr. Co., Inc., New Orleans, La. (17a)
 Hable, E. W., & Sons, Corsicana, Texas (42f)
 Hadden, C. Frank, Albany, Ga. (10a)
 Haddock Engrs., Ltd., Montebello, Calif. (4d)
 Haddock Engrs., Ltd. & Assocs., Anchorage, Alaska (50a)
 Haddock, J. E., Ltd., Pasadena, Calif. (4d)
 Haddock, W. D., Constr. Co., Wilmington, Del. (7a)
 Haegg Constr. Co., Cedar Rapids, Iowa (14a)
 Haeseler, A. H., Bldg. & Contr. Co., St. Louis, Mo. (24c)
 Hafer, Guy J., Chambersburg, Pa. (37a)
 Hagerman Constr. Corp., Fort Wayne, Ind. (13b)
 Haggart Constr. Co., The, Fargo, N. Dak. (33a) (40a)
 Haggart, Geo. E., Constr. Co., Fargo, N. Dak. (33a)
 Haggart, Geo. E., Inc., Fargo, N. Dak. (33a)
 Haggerty-Messmer Co., Bozeman, Mont. (25b)
 Haglin, C. F., & Sons Co., Minneapolis, Minn. (22a)
 Hagman, Henry, Cashmere, Wash. (46c)
 Hahn Constr. Co., Des Moines, Iowa (14a)
 Hahn-St. John, Hawthorne, Calif. (4d)
 Hahner & Foreman, Inc., Wichita, Kans. (15a)
 Haigh, Jos., & Sons Co., Chicago, Ill. (12a)
 Hailey, W. L., & Co., Nashville, Tenn. (41d)
 Hainsworth Constr. Co., Seattle, Wash. (46b)
 Hair, J. L., & Sons Constr. Co., Wichita Falls, Texas (42p)
 Haldeman, M. L., & Son, Hershey, Pa. (37a)
 Hall-Atwater Co., Seattle, Wash. (46b)
 Hall Bros. Constr. Co., Marysville, Kans. (15b)
 Hall Constr. Co., Atlanta, Ga. (10a)
 Hall Constr. Co., Tacoma, Wash. (46d)
 Hall & Cox Constr. Co., Baton Rouge, La. (17d)
 Hall, E. C., Co., Portland, Oreg. (36a)
 Hall, Fred, & Son, Valley Mills, Texas (42f)
 Hall, Guy E., Bakersfield, Calif. (4d)
 Hall, H. H., Constr. Co., East St. Louis, Ill. (12c) (12d)
 Hall, J. W., Constr. Co., Fort Worth, Texas (42c)
 Hall, W. A., & Co., Inc., Norfolk, Va. (45a)
 Hall, W. E., Constr. Co., Alhambra, Calif. (4d)
 Hallahan, John P., Inc., Philadelphia, Pa. (37d)
 Halleran, W. J., & Sons, Seattle, Wash. (46a)
 Hallett Constr. Co., Crosby, Minn. (22a)
 Hallman Bros., Atlanta, Ga. (10a)
 Hallmark Constr. Co., Glendale, Ariz. (2a)
 Halloran, Harry, & Co., Philadelphia, Pa. (37e)
 Halper Constr. Corp., Los Angeles, Calif. (4d)
 Halpin, L. H., Toledo, Ohio (34d)
 Halprin, Jack A., Inc., New Haven, Conn. (6a)
 Halvorson, Carl M., Portland, Oreg. (25a)
 Halvorson, Carl M., Inc., Portland, Oreg. (36a) (36b)
 Halvorson Constr. Co., Salem, Oreg. (11a)
 Halvorson Contrs., Goleta, Calif. (4d)
 Halvorson, H., Inc., Seattle & Spokane, Wash. (46b) (46c) (46e)
 Hamann Constr. Co., Manitowoc, Wis. (48b)
 Hamann Constr. Co., The, Cleveland, Ohio (34c)
 Hamby Constr. Co., Inc., Athens, Tenn. (41a)
 Hamer Bros., Inc., Detroit, Mich. (21a)
 Hamilton Constr. Co., Miami, Fla. (9b)
 Hamilton, Gordon, Contr. Co., Inc., Kansas City, Mo. (24b)
 Hamilton & Thoms, Eugene, Oreg. (36a)
 Hamm, Daniel, Drayage Co., St. Louis, Mo. (24c)
 Hamm, Norman R., Perry, Kans. (15b)
 Hammer Bldg. & Supply Co., Inc., Tampa, Fla. (9c)
 Hammock, R. W., Van Buren, Ark. (3a) (35b)
 Hammond, H. W., Denver, Colo. (5a)
 Hammond, Ross B., Co., Portland, Oreg. (36b)
 Hancock-Carson, Inc., Cheyenne, Wyo. (49b)
 Hancock Co., Mobile, Ala. (1a)
 Hancock, C. W., & Sons, Inc., Lynchburg, Va. (45a)
 Hand Constr. Co., Belmont, N. C. (32a)
 Hanes, C. M., Constr. Co., Denver, Colo. (5b)
 Hannaford Constr. Co., Tulsa, Okla. (35a)
 Hannan, Ed. D., Paducah, Ky. (16c)
 Hansen, Arthur V., Co., Inc., Cedar Falls, Iowa (14b)
 Hansen, Chris, Constr. Co., Sioux City, Iowa (14b)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 267). N—National Member (page 375). L—Local Member.

- Hansen, D. G., Logan, Kans. (15b)
Hansen, John, San Diego, Calif. (4c)
Hansen, Ole, & Sons, Inc., Pleasantville, N. J. (29a)
Hansen & Parr Constr. Co., Spokane, Wash. (25a) (46c)
Hansen, R., Co., The, Cleveland, Ohio (34c)
Hanson, Anfelt B., Portland, Oreg. (36b)
Hanson Constr. Co., Washington, Iowa (14a)
Hanson, Frank W., Indianapolis, Ind. (13b)
Hanson, Gordon, Missoula, Mont. (25a)
Hanson, Olene, Houston, Texas (42f)
Happel, H. J., Constr. Co., Tulsa, Okla. (42j)
Harbeson, W. B., Inc., Houston, Texas (42d)
Harbor Constr. Co., Inc., Willoughby, Ohio (34c)
Hardaway Contr. Co., Columbus, Ga. (10a) (32a)
Hardin, Ira H., Co., Atlanta, Ga. (10a)
Harding Blasting Co., Portland, Oreg. (36a)
Hardison, J. T., & Son, Inc., Washington, N. C. (32a)
Hardison, J. W., Yakima, Wash. (46c)
Hardy Constr. Co., Billings, Mont. (25b)
Haren & Laughlin Constr. Co., Kansas City, Kans. (24a)
Hargrave Constr. Co., Cedar Rapids, Iowa (14a)
Haring, Daniel, Co., Inc., Clinton, Iowa (14b)
Harlan, B. W., Redding, Calif. (4a)
Harlan, E. L., West Plains, Mo. (24b)
Harlee-Quattlebaum Constr. Co., Florence, S. C. (32a)
Harlos Constr. Co., Bloomington, Ind. (13b)
Harman Bros., Grafton, W. Va. (47a)
Harmeling, Carl C., Stockton, Calif. (4b)
Harmon Constr. Co., Oklahoma City, Okla. (35a)
Harms Bros., Sacramento, Calif. (4b)
Harms, W. C., Fort Worth, Texas (42c)
Harney, Chas. L., Inc., San Francisco, Calif. (4b)
Harper Bldrs. Supply, Inc., Williamston, S. C. (32a)
Harper & Florsheim, Shreveport, La. (17b)
Harper & Gray, Paducah, Ky. (16c)
Harper, J. A., Crowville, La. (17g)
Harper, O. O., Constr. Co., Anderson, S. C. (32a)
Harper, W. L., Co., Cincinnati, Ohio (34b)
Harr & Horton, Portland, Oreg. (36a)
Harreld Bros., Marion, Ind. (13b)
Harris & Allen, Avenal, Calif. (4b)
Harris Constr. Co., Faulkton, S. Dak. (40a)
Harris Constr. Co., Inc., Fresno, Calif. (4a)
Harris, E. L., & Son, Charleston, W. Va. (47a)
Harris, J. Henry, Berkeley, Calif. (4b)
Harris-McBurney Co., Jackson, Mich. (21c)
Harris, Sim J., Co., San Diego, Calif. (4c)
Harrison Bros. Co., The, Tacoma, Wash. (46d)
Harrison & Burrowes, Inc., Jersey City, N. J. (31d)
Harrison, C. H., Waco, Texas (42j)
Harrison Construction Company, Pittsburgh, Pa. & Maryville, Tenn. (N) (32a) (37b) (37c) (47a)
Harrison, Constr. Co., The, Denver, Colo. (5b)
Harrison, E. E., Corpus Christi, Texas (42i)
Harrison Engr. & Constr. Corp., Kansas City, Mo. & Woodville, Texas (24b) (42f)
Harrison, H. L., & Son, Inc., Westfield, N. J. (29a)
Harrison, M. R., Constr. Corp., Miami, Fla. (9b)
Hart Constr. Co., Tacoma, Wash. (36a) (46d)
Hart & Hart, Providence, Ky. (13a)
Hartman, John E., Kirkwood, Mo. (24c)
Hartong & Co., LaGrange Park, Ill. (12c) (13a)
Harvard Constr. Corp., Cincinnati, Ohio (34b)
Harvard Constr., Inc., St. Petersburg, Fla. (9c)
Harvey Constr. Co., El Monte, Calif. (4d)
Harvey Constr. Co., Inc., Manchester, N. H. (28a)
Harvey, Geo. R., & Son, Danville, Ind. (13a)
Harvey, J. E., Johnson City, Tenn. (41e)
Harvey, John J., Co., New Hartford, N. Y. (31d)
Harvey, L. A., Jackson, Miss. (23b)
Harvey & Rose, Arcadia, Calif. (4d)
Harvie, Wm. H., Birmingham, Mich. (21c)
Harwell, Edw. E., Constr. Co., Orange, Va. (45a)
Haslebach, Henry, & Sons, Inc., Clarksburg, W. Va. (47a)
Hasler, M. H., Constr. Co., Santa Ana, Calif. (4d)
Hasler, M. H., Constr. Co., & D & H Constr. Co., Kennewick, Wash. (4b)
Hatcher Bros., Inc., Mingo Junction, Ohio (34d)
Hathaway, E. A., & Co., San Jose, Calif. (4a)
Hauser Constr. Co., Portland, Oreg. (36a)
Havard, I. W., Canton, Miss. (23b)
Haverstick-Borthwick Co., Philadelphia, Pa. (37d)
Havlik, John, Jr., Scappoose, Oreg. (36a)
Hawbaker, J. Alvin, Inc., State College, Pa. (37a)
Hawkins & Armstrong, Seattle, Wash. (46a)
Hawkins Constr. Co., West Palm Beach, Fla. (9e)
Hawkins, H. H., & Sons Co., Newton, Mass. (20b)
Hawkins, Neal, Gastonia, N. C. (32a)
Hawley, Lester S., Montebello, Calif. (4d)
Hayes, L. W., Inc., Kansas City, Mo. (24b)
Hayes, R. E., Wilmington, N. C. (32a)
Hayne Engr. Co., Charleston, W. Va. (47a)
Haynes, C. W., Co., Chicago, Ill. (12a)
Haynes, Chas. C., Jr., Constr. Co., Inc., West Durham, N. C. (32a)
Haynes, E. R., Spokane, Wash. (46e)
Haynes, W. G., West Monroe, La. (17g)
Haynsworth Constr. Co., Florence, S. C. (32a)
Hays, A. L., & Son, Port Arthur & Houston, Texas (42b) (42d)
Hays & Nicoulin, Louisville, Ky. (16b)
Hazard, R. E., Contr. Co., San Diego, Calif. (4c)
Hazlewood, Geo. F., Co., Inc., The, Cumberland, Md. (37c)
Hazen & Clark, Spokane, Wash. (46e)
Heald & Christler, Inc., Cody, Wyo. (25a)
Healy, J. L., Constr. Co., Sioux Falls, S. Dak. (40a)
Healy, John E., & Sons, Inc., Wilmington, Del. (7a)
Healy, S. A., Co., The Dalles, Oreg. (36a)
Heard, J. N., Houston, Texas (42d)
Heard, Jesse F., & Son, West Monroe, La. (17g)
Heckendorf, F. A., Littleton, Colo. (5b)
Heckmann-Reynolds Co., Charles City, Iowa (14a)
Hector Constr. Co., Inc., Caledonia, Minn. (22a)
Hedahl-Martin Co., The, Redwood City, Calif. (4a)
Hedges Constr. Co., Springfield, Mo. (24b)
Hedin, J. D., Constr. Co., Washington, D. C. (8a)
Heffner Constr. Co., The, Celina, Ohio (34d)
Hefler-Snyder Co., Plainfield, N. J. (29a)
Hegeman-Harris Co., Inc., New York City (31c)
Heidelberg, C. R., Jacksonville, Texas (42f)
Heidt, R. E., Constr. Co., Lake Charles, La. (17c)
Heineman, J. R., & Sons, Inc., Saginaw, Mich. (21b)
Heintz, R. A., Constr. Co., Portland, Oreg. (36a)
Heisl & Woods, El Monte, Calif. (4d)
Helbig, A. S., Co., The, Akron, Ohio (34a)
Heldenfels Bros., Corpus Christi, Texas (42f) (42j)
Heller-Murray Co., The, Youngstown, Ohio (34f)
Helmer, Stanley S., Grand Rapids, Minn. (22a)
Helwig Constr. Co., Sebastopol, Calif. (4b)
Helwig, Fred R., Millersburg, Pa. (37a)
Henderson, David, & Son, Cleveland, Ohio (34c)
Henderson, H. R., & Co., Marshall, Texas (42f)
Hendrich Constr., Inc., Buffalo, N. Y. (31a)
Hendrick, C. L., & Sons, Waco, Texas (42L)
Hendrick, David R., & Co., Waco, Texas (42L)
Hendricks, Harold, Contr. Co., McAllen, Texas (42o)
Hendrickson Bros., Inc., Valley Stream, N. Y. (31d)
Hendry Bldg. Co., St. Petersburg, Fla. (9c)
Henery, Harry, Inc., Ottawa, Kans. (15b)
Henkel Constr. Co., Mason City, Iowa (14b)
Hennessy, A. P., & Sons, Inc., St. Petersburg, Fla. (9c)
Hennigh, H. E., Cedartown, Ga. (10a)
Henninger, Claude, Co., Bristol, Tenn. (41e)
Henrikson Constr. Co., Seattle, Wash. (46b)
Henry, Frank J., Inc., Wisconsin Rapids, Wis. (48b)
Henry & Hall, Dubach, La. (17e)
Henryetta Constr. Co., Henryetta, Okla. (35b)
Hensler, R. R., Sun Valley, Calif. (4d)
Henson, W. J., Prescott, Ariz. (2a)
Heple, Earl W., Estate, San Jose, Calif. (4b)
Heraty & Gannon, Oakland, Calif. (4b)
Herbison Constr. Co., Brainerd, Minn. (22a)
Herlihy Mid-Continent Company, Chicago, Ill. & Comstock, Mich. (L) (12a) (21b) (21c)
Herman-Sipe & Co., Inc., Conover, N. C. (32a)

A.G.C. DIRECTORY

- Hermco Constr. Co., Beverly Hills, Calif. (4d)
Hermreck & Easter, Santa Maria, Calif. (4d)
Herrick, R. P., Co., Butte, Mont. (25a)
Herrin, C. A., Durham, N. C. (32a)
Herring, Geo. B., & Son, Inc., Mansfield, Ohio (34d)
Herrington, G. S., Auburn, Calif. (4a)
Herrman Constr. Co., Atlanta, Ga. (10a)
Hersom, C. I., Laurens, Iowa (14b)
Hertel & Deyo Co., Grand Rapids, Mich. (21c)
Hertel, R. E., Sacramento, Calif. (4b)
Hertfelder, Wm., Inc., St. Louis, Mo. (24c)
Herzog, Jos., Philadelphia, Pa. (37e)
Heslep, John C., Columbia, S. C. (32a)
Hess Bros. Excavating Contrs., Inc., Parlin, N. J. (29a)
Hess Constr. Co., Inc., Long Beach, Calif. (4d)
Hess-Mace Trucking Co., Dixon, Calif. (4b)
Hess, Marion J., Malad, Idaho (11a)
Hesse, Chas. J., Inc., Belford, N. J. (29a)
Hesser, L. J., Greeley, Colo. (49a)
Heuser & Garnett, Phoenix, Ariz. (2a)
Heustis & Streff, Cadillac, Mich. (21c)
Hew Constr. Co., Boston, Mass. (20b)
Hewett, F. R., & Co., Parkwater, Wash. (46c)
Hewitt, R. N., Corp., Charleston, W. Va. (47a)
Hickey & Co., Dallas, Texas (42a)
Hickey, Frank T., Inc., Los Angeles, Calif. (4d)
Hickey, Thos. L., Inc., South Bend, Ind. (13b)
Hickory Constr. Co., Inc., Hickory, N. C. (32a)
Hicks Co., The, Alma, Mich. (21c)
Hicks Constr. Co., Waco, Texas (42L)
Hicks, Fred E., Constr. Co., Knoxville, Tenn. (41b)
Hicks, R. C., Charlotte, N. C. (32a)
Higginbotham, A. G., Co., Charleston, W. Va. (47a)
Higgins, R. T., Hot Springs, Ark. (3a)
Higgins, V. B., Co., Greensboro, N. C. (32a)
Higgison, Peyton, Mobile, Ala. (1a)
Highland Co., Louisville, Ky. (16b)
Higley, Albert M., Co., The, Cleveland, Ohio (34c)
Hilde Constr. Co., Inc., Great Falls, Mont. (25a)
Hill, Carl V., Constr. Co., Greeley, Colo. (5b)
Hill & Combs, San Antonio, Texas (42c)
Hill Co., Inc., Oak Hill, W. Va. (47a)
Hill, D. B., Little Rock, Ark. (3a)
Hill, Douglas G., Inc., Salina, Kans. (15a)
Hill, F. D., Constr. Co., Amarillo, Texas (42g)
Hill, Houston, Inc., Midland, Texas (42p)
Hill, J. S., Constr. Co., Washington, N. C. (32a)
Hill, Jas. W., Walnut Creek, Calif. (4b)
Hill, John, Constr. Co., St. Louis, Mo. (24c)
Hill, John, Contr. Co., The, Mansfield, Ohio (34d)
Hill, W. D., Constr. Co., Houston, Texas (42d)
Hillier, Don, & Sons, Inc., Pahokee, Fla. (9e)
Hillyer & Loran, Jacksonville, Fla. (9a)
Hilton & Carr, Ogden, Utah (43a)
Hinchberger Constr. Co., Corpus Christi, Texas (42i)
Hinkle Contr. Co., Paris, Ky. (16a)
Hinman, A. E., Corpus Christi, Texas (42i)
Hinman Bros. Constr. Co., The, Denver, Colo. (5b)
Hipskind Drainage Co., Fort Wayne, Ind. (13a)
Hites, L. V., Co., Kansas City, Mo. (15b)
Hites, L. V., Co., & M. W. Watson, Kansas City 8, Mo. (24b)
Hitz Constr. Co., Billings, Mont. (25b)
Hixson & Lehenbauer, Topeka, Kans. (15b)
Hoagland-Findlay Engr. Co., Long Beach, Calif. & Seattle, Wash. (4d) (46a)
Hoak Constr. Co., West Des Moines, Iowa (14a)
Hoar, F. R., & Son, Inc., Birmingham, Ala. (1a)
Hoback, L. E., Everett, Wash. (46a)
Hobbs, E. L., Constr. Co., Denver, Colo. (5a)
Hobe Engr. Co., Sioux City, Iowa (14a)
Hobeck, J. W., Holland, Mich. (21c)
Hobson, Chas., Co., Inc., Knoxville, Tenn. (41b)
Hodgdon, Edwin J., Mirror Lake, N. H. (28a)
Hodges & Co., Inc., Anniston, Ala. (1a)
Hodges Constr. Co., Oklahoma City, Okla. (35b)
Hodgkiss & Douma, Petoskey, Mich. (21c)
Hoeffken, M., Co., & Hoeffken Bros., Inc., Belleville, Ill. (12c) (12d)
Hoelzl Constr. Co., Inc., The, Cleveland, Ohio (34c)
Hoepfner-Bartlett Co., Eau Claire, Wis. (48b)
Hoff, Frederick T., Gulfport, Miss. (23c)
Hoffman Bros., Independence, Iowa (14b)
Hoffman, F., Co., Wilkinsburg, Pa. (37b)
Hoffman, L. H., Co., Portland, Oreg. (36b)
Hoffman, Lee, Beaverton, Oreg. (36a) (36b)
Hoffman, Morris, Contr. Co., Kansas City, Mo. (24a)
Hoffman, Ned B., Fort Worth, Texas (42f)
Hogan, Ben M., & Co., Little Rock, Ark. (3a)
Hogan Bros., Inc., New Orleans, La. (17a)
Hogan Co., The, Riverside, Calif. (4d)
Hohner, Carl, Spokane, Wash. (46c)
Hokanson & Bloom, Rockford, Ill. (12b)
Hoke Constr. Co., Stillwater, Okla. (35a)
Holdener Constr. Co., Sacramento, Calif. (4a)
Holderman, V. N., & Sons, Inc., Columbus, Ohio, (34d) (37c)
Holdren Constr. Co., Mt. Vernon, Ill. (12c)
Holland Bros. Constr. Co., Inc., Decorah, Iowa (14a)
Holland Constr. Co., Holland, Mich. (21c)
Holland, John G., Constr. Co., Houston, Texas (42j)
Hollerich, J. P., Co., LaSalle, Ill. (12c)
Holley, J. F., Constr. Co., Inc., Birmingham, Ala. (1a)
Holm Constr. Co., Glendive, Mont. (25b)
Holm-Page Co., The, Rockford, Ill. (12b)
Holmes Constr. Co., Heyburn, Idaho (11a)
Holmes Constr. Co., The, Wooster, Ohio (37c)
Holmes Corp., The, Glenshaw, Pa. (37b)
Holmes & English, West Englewood, N. J. (20a)
Holmes & Murphy, Orchard Park, N. Y. (31d)
Holmes, T. C., Phoenix, Ariz. (2a)
Holmquist, F. E., Rockford, Ill. (12b)
Holt, H. W., & Son, Columbus, Ohio (34d)
Holt, Heenan, Graham, N. C. (32a)
Holtz, B. W., Houston, Texas (42d)
Holtze, H. S., Constr. Co., Sioux City, Iowa (14b)
Holtzer, Herman W., Fort Worth, Texas (42j)
Holzworth Constr. Co., Miles City, Mont. (25a)
Homann, A. G., Lacey, Wash. (46d)
Home Bldrs. Co., St. Cloud, Minn. (22a)
Homer, W. O., Junction City, Kans. (15b)
Homes & Son Constr. Co., Phoenix, Ariz. (2a)
Homewood, Roy M., Chapel Hill, N. C. (32a)
Honegger Bros. Constr. Co., Kingfisher, Okla. (35b)
Honer, Allison, Co., Santa Ana, Calif. (4d)
Honnen, Ed. H., Denver, Colo. (5b)
Hood Constr. Corp., Lynwood, Calif. (4d)
Hood, E. E., & Son, San Antonio, Texas (42f)
Hooker Constr. Co., Waco, Texas (42L)
Hooks, C. F., Birmingham, Ala. (1a)
Hooper Concrete Pipe Co., Phoenix, Ariz. (2a)
Hoops Constr. Co., Twin Falls, Idaho (11a)
Hope Bldg. Co., Inc., Providence, R. I. (38a)
Hopkins, D. W., Wheatland, Wyo. (49a)
Hopkins, Geo. P., Gulfport, Miss. (23c)
Hopkins, Lewis A., & Co., Yakima, Wash. (46e)
Hopkins, Richard, Co., Albany, N. Y. (31d)
Hopper Co., San Francisco, Calif. & Anchorage, Alaska (4a) (50a)
Hopper Co., Seattle, Wash. (46a)
Horman Constr. Co., Salt Lake City, Utah (43a)
Horn, B. F., Co., Abilene, Texas (42p)
Horn Bros., Inc., Boston, Mass. (20b)
Horn Constr. Co., Inc., Merrick, L. I., N. Y. (31d)
Horn, Henry L., Connell, Wash. (11a)
Horn's Crane Service, Denver, Colo. (5b)
Horner, A. S., Constr. Co., Denver, Colo. (5b) (49a)
Horning, Roy, Inc., Flint, Mich. (21c)
Horrabin, Wm., Contr. Co., Iowa City, Iowa (14a)
Horster Constr. Co., Tulsa, Okla. (35a)
Horstmeyer, Wm., Co., San Francisco, Calif. (4a)
Hortie, R. J., San Diego, Calif. (4c)
Horton, G. V., Springfield, Mo. (24b)
Hospital Constrs., Inc., Pittsburgh, Pa. (37b)
Houge, R. S., Springfield, Mo. (24b)
Hough-Cowgur & Co., Inc., St. Louis, Mo. (23a) (24b)
Houser, T. F., Asheville, N. C. (32a)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 267). N—National Member (page 375). L—Local Member.

Houska, J. R., Co., Inc., Norfolk, Va. (45a)
 Houston Co., Brunswick, Me. (18a)
 Houston Contr. Co., Houston, Texas (42m)
 Howard Constr. Co., Sedalia, Mo. (24b)
 Howard Constr. Co., Inc., Greensboro, N. C. (32a)
 Howard Constr. Co., Inc., Houston, Texas (42d)
 Howard, G. F., Constr. Co., Inc., Canfield, Ohio (34d)
 Howard, J. H., Madisonville, Texas (42f)
 Howard-Mitchell Constr. Co., Richmond, Va. (45a)
 Howard, O. W., Madisonville, Texas (42f)
 Howe, T. D., Constr. Co., Inc., Houston, Texas (42d)
 Howell, B. L., & Sons Constr. Co., Philadelphia, Miss. (23d)
 Howell, E. W., Co., New York City (31c)
 Howell, Jas. R., & Co., Denver, Colo. (5a)
 Howells, Prosser, Gary, Ind. (13b)
 Howes & Farrell, Inc., Oneida, N. Y. (31d)
 Howie Constr. Co., Jackson, Miss. (23b)
 Howland, Fred, Inc., Miami, Fla. (9b)
 Howton, W. C., Contr. Co., Birmingham, Ala. (1a)
 Hoy, L. J., Norfolk, Va. (45a)
 Hoyt, Chas. H., Silverton, Oreg. (36a)
 Hubbard Constr. Co., Orlando, Fla. (9c)
 Hubbard Constr. Co., Inc., Houston, Texas (42d)
 Hubbard, Roy, Constr. Co., Inc., Junction City, Kans. (15a)
 Hubbell, J. T., Constr. Co., Houston, Texas (42d)
 Hubbell, O. W., New Hartford, N. Y. (29a) (31d)
 Hubbell, S. W., Bldg. Co., The, West Redding, Conn. (6a)
 Huber, Hunt & Nichols, Inc., Indianapolis, Ind. (13b)
 Hubner, C. L., Co., Denver, Colo. (5b)
 Huckaba & Sons Constr. Co., Charleston, Ill. (12c)
 Hucker, Clarence P., Co., Kansas City, Mo. (24a)
 Hudgins, M. S., Roanoke, Va. (45a)
 Hudson River Constr. Co., Albany, N. Y. (31d)
 Huenergard Elec. Co., Portland, Oreg. (36a)
 Huettig, Schromm & Bennett, Palo Alto, Calif. (4b)
 Hufeisen, C. Wm., Anchorage, Alaska (50a)
 Hughes, Chas. T., Constr. Co., Oklahoma City, Okla. (35a)
 Hughes-Foulkrod Co., Philadelphia, Pa. (37d)
 Hughes, H. D., Roswell, N. Mex. (30b)
 Hughes, J. B., Brownsville, Texas (42o)
 Hull, Clarence A., Dryden, Mich. (21c)
 Hulme, Chas., Great Bend, Kans. (15b)
 Humble & Humble, Monroe, La. (17g)
 Humel Constr., Inc., Cleveland, Ohio (34c)
 Hune & Calvin, Marietta, Ohio (47a)
 Hungerford Constr. Co., Jackson, Mich. (21b)
 Hunkin-Conkey Constr. Co., The, Cleveland, Ohio (34c) (37c)
 Hunnicutt, A. R., Co., New Castle, Ind. (13b)
 Hunsicker, L. W., Co., Allentown, Pa. (37a)
 Hunt, C. R., Cass City, Mich. (21c)

Hunt Constr. Co., Steamboat Springs, Colo. (5b)
 Hunt Constr. Co., Inc., North Durham, N. C. (32a)
 Hunt, David M., Philadelphia, Pa. (37d)
 Hunter Constr. Co., Ada, Okla. (35b)
 Hunter Constr. Co., Birmingham, Ala. (1a)
 Hunter, Ralph H., Constr. Co., Hays, Kans. (15b)
 Hunting, J. L., Co., The, Cleveland, Ohio (34c)
 Huntington Bros., Napa, Calif. (4b)
 Hunzinger Constr. Co., Milwaukee, Wis. (48a)
 Hurley, Gene, Constr. Co., St. Paul, Minn. (22a)
 Hursey, Clinton, Constr. Co., East St. Louis, Ill. (12d)
 Husman Bros., Inc., Sheridan, Wyo. (49b)
 Hutcheson Constr. Co., Inc., Denver, Colo. (5b)
 Hutchinson, J. M., Sandyville, W. Va. (47a)
 Hutter Constr. Co., Fond du Lac, Wis. (48b)
 Hyde Constr. Co., Jackson, Miss. (23a)
 Hydrocarbon Research, Inc., New York, N. Y. (N) (37d) (42d)
 Hyman, Geo., Constr. Co., The, Washington, D. C. (8a)
 Hymans, John, & Sons, Hull, Iowa (14a)
 Hyndman, Earle L., Boston, Mass. (20b)

I

Iber, C., & Sons, Peoria, Ill. (12a)
 Idaho Constrs., Inc., Boise, Idaho (11a)
 Ideson Co., Inc., The, Kirkwood, Mo. (24c)
 Illinois Steel Bridge Co., Jacksonville, Ill. (12c)
 Immel Constr. Co., Fond du Lac, Wis. (48b)
 Immel, Lee J., San Pablo, Calif. (4b)
 Imperial Paving Co., Oklahoma City, Okla. (35b) (42j)
 Ind, Chas., Co., Rockford, Ill. (12c)
 Independent Constr. Co., Oakland, Calif. (4b)
 Independent Constr. Co., Overland Park, Kans. (15b)
 Indiana Constr. Co., Inc., Fort Wayne, Ind. (13b)
 Industrial Bldrs., Inc., Anderson, S. C. (32a)
 Industrial Constr. Co., Detroit, Mich. (21a)
 Industrial Constr. Co., Oklahoma City, Okla. (35a)
 Industrial Constr. Co., The, Hartford, Conn. (6a)
 Industrial Constrs., Denver, Colo. (5a)
 Industrial Constr., Inc., Cleveland, Ohio (34c)
 Industrial Contr. Co., Minneapolis, Minn. (22a)
 Industrial Contr. Co. & Assocs., Jacksonville, Fla. (9a)
 Industrial Engr. Co., New York City & Fort Meade, Md. (19a) (31c)
 Industrial Engrs. & Contrs., Inc., Tacoma, Wash. (4b) (36b) (46d)
 Industrial Engrs., Inc., Los Angeles, Calif. (4d)
 Inge-Hayman Constr. Co., Inc., Dallas, Texas (42a)
 Ingram, W. K., Constr. Co., West Memphis, Ark. (23a)
 Inland Asphalt Co., Spokane, Wash. (46c)

Inland Constr. Co., Wichita, Kans.; Omaha, Neb.; Cheyenne, Wyo. & Rapid City, S. Dak. (5b) (15b) (25a) (26b) (40a) (49a)
 Inland Constr. Co., Inc., Rosedale, Miss. (23a)
 Inter-City Sand & Gravel Co., Inc., Eugene, Oreg. (36a)
 Intercountry Constr. Corp., Hyattsville, Md. (L)
 Intermountain Bldrs., Inc., Caldwell, Idaho (11a)
 Intermountain Plumbing Co., Boise, Idaho (11a)
 International Chimney Corp., Buffalo, N. Y. (31a)
 Inter State Constr. Co., Kansas City, Mo. (24a)
 Interstate Constr. Co., Charlotte, N. C. (32a)
 Inwood Constr. Co., Dallas, Texas (42a)
 Iowa Bridge Co., Des Moines, Iowa (14a)
 Iowa Road Bldg. Co., Fairmont, Minn. (14a)
 Irish, E. A., Los Angeles, Calif. (4d)
 Irmischer, Max, & Sons, Inc., Fort Wayne, Ind. (13b)
 Irons & Reynolds, Inc., Washington, D. C. (8a)
 Irwin, John, Contr. Co., Inc., The, Lockport, N. Y. (31d)
 Irwin & Leighton, Philadelphia, Pa. (37d)
 Irwin, Robt. L., Memphis, Tenn. (41c)
 Isackson, Geo., Co., Portland, Oreg. (36b)
 Isbell Constr. Co., Inc., Reno, Nev. (2a) (27a)
 Istock, Nick, Aliquippa, Pa. (37c)
 Ivey Bros. Constr. Co., Atlanta, Ga. (10a)
 Ivy Constr. Corp., Charlottesville, Va. (45a)
 Izzi, Michael, Temple City, Calif. (4d)

J

J. & B. Constr. Co., Los Angeles, Calif. (4d)
 J & J Constr. Co., Oklahoma City, Okla. (35a)
 J. & K. Constr. Co., Denver, Colo. (5a)
 J-K Constr. Co., Milton, Iowa (14a)
 J-P Constr. Co., The, Chicago Heights, Ill. (12c)
 Jacks & Irvine, San Francisco, Calif. (4a)
 Jackson, A. L., Co., Chicago, Ill. (12a)
 Jackson & Brittain, Savannah, Ga. (10a)
 Jackson Constr. Co., Emmetsburg, Iowa (14b)
 Jackson, E. B., Corpus Christi, Texas (42i)
 Jackson, John K., Ironwood, Mich. (21c)
 Jacobs, M. C., Constr. Co., Denver, Colo. (5b)
 Jacobs, M. J., & Sons, Bird Island, Minn. (22a)
 Jacobs, S. S., & Co., Jacksonville, Fla. (9a)
 Jacobsen, Carl J., Sharpsburg, Pa. (37c)
 Jacobsen Constr. Co., Salt Lake City, Utah (43a)
 Jacobsen, K. F., & Co., Inc., Portland, Oreg. (36a)
 Jacobson, Bert A., Co., Inc., Pittsburgh, Pa. (37c)
 Jacobson, Con, Co., Marshalltown, Iowa (14b)
 Jacobson, John, Co., The, Akron, Ohio (34a)
 Jacobson, L. A., Pauls Valley, Okla. (15b)
 Jacobucci, R. R., Inc., West Quincy, Mass. (20b)

A.G.C. DIRECTORY

- Jaggard, R. B., Marlton, N. J. (29a)
 Jahncke Service, Inc., New Orleans, La. (23a)
 James, Guy H., Constr., Oklahoma City, Okla. (35b)
 James, T. J., Constr. Co., Inc., Miami, Fla. (9b)
 James, T. L. & Co., Inc., Ruston, La. (L) (17e) (23a)
 James, Worth, Constr. Co., Little Rock, Ark. (3a)
 James & Wunderlich, Chester, Mont. (25a)
 James & Yost, Inc., Portland, Ore. (36a)
 Jameson Constr. Co., Longview, Texas (42n)
 Jameson, P. W., Constr. Co., Memphis, Tenn. (41c)
 Jamison, E. J., Los Angeles, Calif. (4d)
 Jansen, Jos. P., Co., Milwaukee, Wis. (48a)
 Jansen & Schaefer, Pekin, Ill. (12c)
 Jantelle, P., Inc., Newark, N. J. (L)
 Jarbet Co., The, San Antonio, Texas (42f)
 Jardine Bridge Co., Inc., Fargo, N. Dak. (33a)
 Jarl, Vernie, Gresham, Ore. (36a)
 Jarrell, L. L., Constr. Co., Whistler, Ala. (1a)
 Jarrett, Watson E., Altadena, Calif. (4d)
 Jarvick, E., Constr. Co., Detroit, Mich. (21c)
 Jarvis-Courtney Corp., Clarksburg, W. Va. (47a)
 Jarvis, Paul, Inc., Seattle, Wash. (46a)
 Jayhawk Constr. Co., Inc., Topeka, Kans. (15a)
 Jefferson Asphalt Co., Inc., Mt. Vernon, Ill. (12c)
 Jeffress-Dyer, Inc., Washington, D. C. (8a)
 Jeffries Constr. Co., Mankato, Minn. (22a)
 Jennings, J. D., Co., Louisville, Ky. (16b)
 Jensen, A., New Orleans, La. (17a)
 Jensen Bros., Salt Lake City, Utah (43a)
 Jensen, Chris. Co., St. Paul, Minn. (22a)
 Jensen Constr. Co., Des Moines, Iowa (14a)
 Jensen Constr. Co., Minneapolis, Minn. (22a)
 Jensen & Krage, Sioux City, Iowa (14a)
 Jensen & Pitts, San Rafael, Calif. (4b)
 Jensen, R. M., Constr. Co., Salt Lake City, Utah (43a)
 Jensen, Wayne A., Brigham City, Utah (43a)
 Jenson & Ridge, Wichita, Kans. (15a)
 Jentoft & Forbes, Seattle, Wash. (46b)
 Jerome Constr. Co., Savannah, Ga. (10a)
 Jesse, Frank, Amarillo, Texas (42g)
 Jesse, Walter A., Akron, Ohio (34a)
 Jimison, C. H., & Sons, Huntington, W. Va. (47a)
 Jobst, V., & Sons, Peoria, Ill. (L)
 Johns Bros. Constr. Co., Inc., Binghamton, N. Y. (31d)
 Johns Engr. Co., Denver, Colo. (5a)
 Johnson, A. C., & Sons, Eureka, Calif. (4b)
 Johnson, A. W., Co., Inc., Seattle, Wash. (46a)
 Johnson, Adolph, & Son Co., Youngstown, Ohio (34f)
 Johnson, Al, Helena, Mont. (25b)
 Johnson, Al, Construction Co., Minneapolis, Minn. (N) (22a)
 Johnson, B. A., Indianola, Iowa (14b)
 Johnson Bros. Constr. Co., Salina, Kans. (15a)
 Johnson, C. O., Constr. Co., Minneapolis, Minn. (22a)
 Johnson, Chas. B., & Sons, Chicago, Ill. (12a)
 Johnson Constr. Co., Tucson, Ariz. (2a)
 Johnson Constr. Co., Grove City, Minn. (22a)
 Johnson Constr. Co., Winona, Minn. (22a)
 Johnson Constr. & Maintenance Co., Anchorage, Alaska (50a)
 Johnson-Crooks, Anchorage, Alaska (50a)
 Johnson, Drake & Piper, Inc., Minneapolis, Minn.; New York, N. Y.; Platteville, Wis.; Oakland, Calif. & Terre Haute, Ind. (4a) (13b) (22a) (29a) (31d) (37c) (48b)
 Johnson & Duke, Inc., Everett, Wash. (46a)
 Johnson, Ed, Waco, Texas (42L)
 Johnson, G. C., Co., Welch, W. Va. (47a)
 Johnson & Geddes, Fayetteville, N. C. (32a)
 Johnson, Geo. D., Co., Peoria, Ill. (12a)
 Johnson-Gillanders Co., Grand Forks, N. Dak. (33a)
 Johnson-Greene Co., Ann Arbor, Mich. (21c)
 Johnson, H. W., South Sioux City, Nebr. (26b) (40a)
 Johnson & Henrickson, Racine, Wis. (48b)
 Johnson, I. M., Bozeman, Mont. (25b)
 Johnson, J. Walter, Los Angeles, Calif. (4d)
 Johnson, Joel, & Son, San Francisco, Calif. (4a)
 Johnson, John A., & Sons, Inc., Washington, D. C. (8a)
 Johnson & Johnson Constr. Co., Rome, Ga. (10a)
 Johnson, Jos. E., & Son, St. Paul, Minn. (22a)
 Johnson, L. T., Ogden, Utah (43a)
 Johnson, Le Grand, Logan, Utah (43a)
 Johnson & Lunn Contrs., Inc., Bismarck, N. Dak. (33a)
 Johnson, M. L., Cedar Rapids, Iowa (14a)
 Johnson, Richard, Co., Hartford, Conn. (6a)
 Johnson, W. L., Construction Co., Hicksville & Columbus, Ohio (37c)
 Johnson, W. L., Construction Co. and Associates, Hicksville & Columbus, Ohio (N) (34d)
 Johnson, Walter S., Bldg. Co., Inc., Niagara Falls, N. Y. (31a)
 Johnson Western Constrs., San Pedro & Oakland, Calif. (4b) (4d)
 Johnson & Willard, Knoxville, Tenn. (41b) (41c)
 Johnston, A. P., Baton Rouge, La. (17e)
 Johnston, Guy, Lumber & Supply Co., The, Steubenville, Ohio (L)
 Johnston, Wagner, Constr. Co., Sioux City, Iowa (14a)
 Joliet Bridge & Constr. Co., Joliet, Ill. (12c)
 Jones, A. Berney, Montgomery, Ala. (1a)
 Jones Bros., Beverly Hills, Calif. (4d)
 Jones Bros. & Co., Wilson, N. C. (32a)
 Jones & Buchanan, Baton Rouge, La. (23a)
 Jones Constr. Co., Denver, Colo. (5b)
 Jones, D. F., Constr. Co., Little Rock, Ark. (3a)
 Jones, Dolph, Tacoma, Wash. (46d)
 Jones, E. B. & A. A., Denver, Colo. (5a)
 Jones & Gillis, Inc., Clarksdale, Miss. (23a)
 Jones & Hezlep, Denver, Colo. (5a)
 Jones-Hinckley & Jones, Inc., Powell, Wyo. (49a)
 Jones, J. A., Constr. Co., Inc., Charlotte, N. C.; Atlanta, Ga. & Shreveport, La. (10a) (17a) (17b) (32a)
 Jones, J. D., Constr. Co., Big Spring, Texas (42p)
 Jones, J. Lawrence, Dallas, Texas (42a)
 Jones, Jas. E. Jr., Casper, Wyo. (49b)
 Jones, Jiroud, & Co., Atlanta, Ga. (10a)
 Jones, Jo B., Co., Austin, Texas (42k)
 Jones-Kissner Constr. Co., St. Louis, Mo. (24c)
 Jones, L. S., & Sons, Inc., Racine, Wis. (48b)
 Jones, Lew, Constr. Co., San Jose, Calif. (4b)
 Jones, O. C., & Sons, Berkeley, Calif. (4b)
 Jones, R. F., Co., The, Newington, Conn. (6a)
 Jones, R. J., & Sons, Alexandria, La. (17f)
 Jones, S. K., Constr. Co., Memphis, Tenn. (23a)
 Jones, W. B., Palo Cedro, Calif. (4b)
 Jones, W. Boyd, Co., Omaha, Nebr. (26a)
 Jones & Williams Constr. Co., Waco, Texas (42L)
 Jones, Winton, Walnut Creek, Calif. (4b)
 Jordan Bldrs., Austin, Minn. (22a)
 Jordan Co., The, Columbus, Ga. (10a)
 Jordan Constr. Co., Jackson, Miss. (23b)
 Jordan Constr. Co., Hensel, N. Dak. (33a)
 Jorgensen, O., & Sons, Clinton, Iowa (14b)
 Jorstad, John, Sioux City, Iowa (14b)
 Joyce Bros. Contr. Co., Springfield, Ill. (12c)
 Joyce, Leon, Rochester, Minn. (22a)
 Juerling, Vincent H., & Sons, Richmond, Ind. (13b)
 Juhz & Sons, Portland, Ore. (36b)
 Julian, Jas., Constr. Co., Wilmington, Del. (7a)
 Julian, John, Constr. Co., Wilmington, Del. (7a)
 Julian Paving Co., Wilmington, Del. (37c)
 Juneau, L. P., Alexandria, La. (17f)
 Junglaus, Wm. P., Co., Inc., Indianapolis, Ind. (13b)
 Jurgensen, John R., Newtown, Ohio (34b)
 Jussel, Joe A., Bellingham, Wash. (46a)
 Justice-Dunn Co., Oakland, Calif. (4b)
 Jutton-Kelly Co., Dearborn, Mich. (21a) (21c)

K

- K-M Constr. Co., Dubuque, Iowa (14b)
 Kaaz, Julius E., Jr., Leavenworth, Kans. (15a)
 Kaeser, Harold, Co., Seattle, Wash. (46a)
 Kahl & Mahon, Liberty, Ind. (13a)
 Kahn, M. B., Constr. Co., Columbia, S. C. (32a)
 Kaiser-Ducett Co., Chicago, Ill. (12a)
 Kaiser, E. A., Co., Inc., Beverly Hills, Calif. (4d)
 Kaiser Engrs., Richland, Wash. (46c)
 Kaiser, Engrs., Div. of Henry J. Kaiser Co., Oakland & Fontana, Calif. (4b) (4d)
 Kaiser Engrs., Inc., New Orleans, La. (17a)
 Kalkman, Neil & Al, Constr. Co., Holland, Mich. (21c)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 267). N—National Member (page 375). L—Local Member.

- Kalsched, W. R. & Co., San Jose, Calif. (4a)
- Kane, Geo. W., Durham, N. C. (32a)
- Kansas City Bridge Company, Kansas City, Mo.; Lake Charles & Plaquemine, La. (N) (24b)
- Kares Constr. Co., Inc., Cleveland, Ohio (34c)
- Kaser Constr. Co., Des Moines, Iowa (14a)
- Kathman, Herman, Seattle, Wash. (46a)
- Katterjohn, Geo. W., Paducah, Ky. (16c)
- Katzman, Emanuel, Co., Youngstown, Ohio (34f)
- Kaucher, Walter, Los Angeles, Calif. (4d)
- Kauffman Bros., Langhorne, Pa. (37c)
- Kaufman Constr. Co., Inc., Philadelphia, Pa. (29a) (37e)
- Kaufmann, W. J. C., Co., Detroit, Mich. (21a)
- Kaw Paving Co., Inc., Topeka, Kans. (15b)
- Kaylor, John R., Gastonia, N. C. (32a)
- Kea, Silas S., & Sons, Ivor, Va. (45a)
- Kealiher, Paul A., Checotah, Okla. (35b)
- Kealy Constr. Co., Hastings, Nebr. (26a)
- Keck, G. E., Fairview, Okla. (35b)
- Keeble, Edw., San Jose, Calif. (4b)
- Keefer, E. H., & Son, Philadelphia, Pa. (37d)
- Keeley Bros. Constr. Co., East St. Louis, Ill. (12c) (12d)
- Keeley, John J., East St. Louis, Ill. (12d)
- Keeley, John J., Co., East St. Louis, Ill. (12d)
- Keeley, Jos. P., Constr. Co., East St. Louis, Ill. (12d)
- Kehe Constr. Co., Waverly, Iowa (14a)
- Keil & Peterman Co., Ketchikan, Alaska (50a)
- Keim Constr. Co., Tecumseh, Nebr. (26b)
- Kelleher Corp., Turners Falls, Mass. (31d)
- Keller Constr. Corp., New Orleans, La. (17a)
- Keller, John H., Constr. Co., Denver, Colo. (5a)
- Kelley & Meyer Co., The, Youngstown, Ohio (37c)
- Kelley-Nelson Constr. Co., Little Rock, Ark. (3a)
- Kelley-Wood Co., The, New Haven, Conn. (6a)
- Kelliher, Jas. S., Quincy, Mass. (20b)
- Kellogg, M. W., Co., The, New York, N. Y. (4d)
- Kelly Bros., Inc., San Jose, Calif. (4a)
- Kelly, C. A. & R. J., Kansas City, Mo. (24a)
- Kelly Constr. Co., San Antonio, Texas (42f)
- Kelly-Generes Constr. Co., New Orleans, La. (17a)
- Kelly, J. A., Co., Nashville, Tenn. (41d)
- Kelly, John F., Terre Haute, Ind. (13a)
- Kelly, Jos. F., Co., The, West Haven, Conn. (6a)
- Kelly Paving Co., Philadelphia, Pa. (37e)
- Kelly, Ray R., & Co., Tacoma, Wash. (46d)
- Kelton, John C., & Son, Phoenix, Ariz. (2a)
- Kemmer, A. E., Lafayette, Ind. (13b)
- Kemp Bros., Los Angeles, Calif. (4d)
- Kemper Constr. Co., Los Angeles, Calif. (4d)
- Kemper, Paul R., Minot, N. Dak. (33a)
- Kenaston & Huntley, Lewiston, Idaho (46c)
- Kendall Constr. Co., Tacoma, Wash. (46d)
- Kendall Constr. Co., Inc., West Palm Beach, Fla. (9c)
- Kenhill Constr. Co., Charleston, W. Va. (47a)
- Kennedy Constr. Co., Beloit, Wis. (48b)
- Kennedy, John, & Co., New York City (31c)
- Kenney, Frank M., Denver, Colo. (5a) (5b)
- Kenney, Jas. B., Inc., Denver, Colo. (5a) (5b)
- Kenworthy, C. V., Stockton, Calif. (4b)
- Kenyon, E. C., Jacksonville, Fla. (9a)
- Kenyon, Worth D., Constr. Co., Inc., Raleigh, N. C. (32a)
- Kepp, W. A., & Sons Co., Orange City, Iowa (14b)
- Kern & Kibbe, Portland, Ore. (36a)
- Kerns, G. E., Long Beach, Calif. (4d)
- Kero, Peter W., Inc., Lyndhurst, N. J. (29a) (31d)
- Kerr Engr. & Constr. Co., Kilgore, Texas (42a)
- Kerr & Middleton, Lubbock, Texas (42f)
- Kesling, Paul H., Waycross, Ga. (10a)
- Ke-Ston Constr. Co., Davis, Calif. (4b)
- Ketell Constr. Co., Portland, Ore. (36a)
- Ketner Bros., Tacoma, Wash. (46d)
- Kettelhut, K. H., Lafayette, Ind. (13b)
- Kevry Constr., Inc., San Leandro, Calif. (4b)
- Kidde, Walter, Constrs., Inc., New York City & Houston, Texas (31c) (37d) (42d)
- Kiely Constr. Co., Butte, Mont. (25a)
- Kier, W. E., Constr. Co., San Diego & El Segundo, Calif. (4c) (4d)
- Kies, Geo., Austin, Texas (42f)
- Kiewit, Peter, Sons' Co., Omaha, Nebr.; Sheridan, Wyo.; Arcadia & San Francisco, Calif.; Denver, Colo.; Rapid City, S. Dak.; Wichita, Kans.; Seattle & Longview, Wash.; Oklahoma City, Okla. (2a) (4b) (4d) (5a) (5b) (11a) (14a) (15b) (24b) (25a) (26a) (26b) (35b) (36a) (40a) (46a) (46c) (49a) (50a)
- Kiewit, Peter, Sons' Co. & Bates & Rogers Constr. Corp., Philadelphia, Pa. (37e)
- Kiker & Yount, Inc., Reidsville, N. C. (32a)
- Killian-Keller Co., Fredericksburg, Texas (42f)
- Killian, M. B., San Antonio, Texas (42f)
- Kimes, Kenneth K., Salinas, Calif. (4a)
- Kimmins, Wm. W., & Sons, Kenmore, N. Y. (31a)
- King Constr. Co., Odessa, Texas (42p)
- King Constr. Co., Jackson, Miss. (23b)
- King-Hunter, Inc., Greensboro, N. C. (32a)
- King, J. M., Baton Rouge, La. (17d)
- King, Jas., & Son, Inc., Washington, D. C. (8a)
- King, M. J., Inc., San Francisco, Calif. (4a)
- King, Robt. H., Danville, Ind. (13a)
- King, Winter, & Son, Beaumont, Texas (42h)
- Kingery Constr. Co., Lincoln, Nebr. (26a)
- Kingery, Elwood, Ada, Okla. (35b)
- Kingsolver, Arthur E., Bristol, Va. (41e)
- Kinnare Corp., The, Chicago, Ill. (12a)
- Kirby & McGuire, Inc., Baltimore, Md. (19a)
- Kirchhof, F. J., Constr. Co., Denver, Colo. (5a)
- Kirkpatrick Constr. Corp., Hopkinsville, Ky. (16c)
- Kirkpatrick, R. F., & Sons, Burlington, N. C. (32a)
- Kirkwood Constr. Co., Kirkwood, Mo. (24b)
- Kirst Constr. Co., Altadena, Calif. (4d)
- Kissick & Son Constr. Co., Hickman Mills, Mo. (24b)
- Kitchell-Phillips Contrs., Inc., Phoenix, Ariz. (2a)
- Kitchens, Rex D., Constr. Co., Austin, Texas (42k)
- Kiziah, J. H., Hickory, N. C. (32a)
- Klarquist, John A., Los Angeles, Calif. (4d)
- Klaver & Wallace, Kingman, Kans. (15b)
- Klefman, H. E., Co., The, Cleveland, Ohio (34c)
- Klehr, L. M., Constr. Co., Inc., Minneapolis, Minn. (22a)
- Kleinsmid Constr. Co., Inc., Bakersfield, Calif. (4d)
- Klinger, W. A., Co., Sioux City, Iowa (14b)
- Klise Constr., Bettendorf, Iowa (14b)
- Kloepfer Constr. Co., Logan, Kans. (15b)
- Kloepfer & Gramkow, Boise, Idaho (11a)
- Kloster Co., St. Louis, Mo. (24c)
- Klug & Smith Co., Milwaukee, Wis. (48a)
- Knapp & East, Lake Charles, La. (17c)
- Knapp, Walter, Monroe, Mich. (21c)
- Knight, Inc., Reidsville, N. C. (32a)
- Knisely-Moore Co., Douglas, Wyo. (49a)
- Knoop, J. K., Constr. Co., Kansas City, Mo. (24a)
- Knost, B. L., Meridian, Miss. (23d)
- Knowles, John B., Wenatchee, Wash. (46a)
- Knox Bros., Inc., Thomson, Ga. (32a)
- Knudsen, Carl M., & Co., Minot, N. Dak. (33a)
- Knudson, Wm., & Sons, Des Moines, Iowa (14b)
- Knuth, E. C., & Co., Milwaukee, Wis. (48a)
- Knutson Constr. Co., Minneapolis, Minn. (22a)
- Knutson Constr. Co., Houston, Texas (42d)
- Knutson-Gould Constr. Co., Kansas City, Mo. (24b)
- Koch Constr. Co., St. Joseph, Mo. (24a)
- Koller Constr. Co., Oklahoma City, Okla. (42j)
- Kolob Constr. Co., Phoenix, Ariz. (2a)
- Kolyn Constr. Co., Trenton, N. J. (29a)
- Komatz Constr. Co., St. Peter, Minn. (22a)
- Konen, J. F., Constr. Co., Lewiston, Idaho (46c)
- Korshoj Constr. Co., Blair, Nebr. (26a)
- Koski Constr. Co., The, Ashtabula, Ohio (34d)
- Koss Construction Company, Des Moines, Iowa (N) (14a) (15b) (24b)
- Kost, Leo, Pierre, S. Dak. (40a)
- Kovash, Inc., Dickinson, N. Dak. (33a)
- Kovtynovich, John, Eugene, Ore. (36a)
- Kraft & Newell, Florence, S. C. (32a)
- Krahl Constr. Co., Chicago, Ill. (12a)
- Krall, Emil H., Phoenix, Ariz. (2a)
- Kramme, C. J., Ft. Dodge, Iowa (14b)
- Kranz, M., Engr. & Constr. Co., New York, N. Y. (31d)
- Krapf, Frederic G., & Son, Wilmington, Del. (7a)
- Kratochvil Constr. Co., New Prague, Minn. (22a)
- Kraus-Anderson, Inc., Minneapolis, Minn. (22a)
- Kraus-Anderson of St. Paul Co., St. Paul, Minn. (22a)
- Kraus, Samuel, Co., St. Louis, Mo. (24b) (24c)
- Kreby Constr. Co., Indianapolis, Ind. (13b)

A.G.C. DIRECTORY

Krehbiel Constr. Co., Columbia, Mo. (24b)
 Kretz, John H., Washington, Ind. (13b)
 Krieg, J. E., & Sons, Fargo, N. Dak. (33a)
 Krill, Leonard H., Co., The, Cleveland, Ohio (34c)
 Kroeger, Harry W., Erection Co., St. Louis, Mo. (24c)
 Kroening Engr. Corp., Milwaukee, Wis. (48a)
 Krummel, Paul, Shrewsbury, Mo. (24c)
 Kruzick, Geo., Constr. Co., Winamac, Ind. (13a)
 Kucharo & Assocs., Inc., Des Moines, Iowa (14b)
 Kuckenberg Constr. Co., Portland, Oreg. (36a)
 Kuhlman, Leo E., Inc., Detroit, Mich. (21a)
 Kuhn Constr. Co., Charleston, W. Va. (47a)
 Kukurin, Frank, & Sons, Inc., E. McKeesport, Pa. (37c)
 Kuljian Corp., Philadelphia, Pa. (37d)
 Kuney-Johnson Co., Seattle, Wash. (46b)
 Kuney, Max J., Co., Spokane & Seattle, Wash. (25a) (46c) (50a)
 Kurtz Bldg. Co., Ann Arbor, Mich. (21b)
 Kutsche, A. W., & Co., Dearborn, Mich. (21a)
 Kyburz Constr. Co., Aberdeen, S. Dak. (L)

L

L. A. Paving Co., Los Angeles, Calif. (4d)
 L & M Constr. Co., Memphis, Tenn. (41c)
 L & R Constr. Co., St. Louis, Mo. (24c)
 L & S Constr. Co., Moses Lake, Wash. (46e)
 LaBarge Bros. Co., Inc., Baldwinville, N. Y. (31d)
 Laburnum Constr. Corp., Richmond, Va. (45a)
 Lacoste, Inc., Gulfport, Miss. (23c)
 Lacy, L. H., Co., Dallas, Texas (42f)
 Ladd Constr. Co., Ladd, Ill. (12c)
 La Fond, Marcel, Little Falls, Minn. (22a)
 La Fountain, A. A., Inc., Hackensack, N. J. (L)
 Lagneaux, Richard, & Son, Inc., Dusen, La. (17f)
 Laing-Garrett Constr. Specialties, Inc., Phoenix, Ariz. (2a)
 Lake Constr. Co., Eagle Lake, Texas (42d)
 Lake, D. M., Constr. Co., Shelbyville, Ill. (12c)
 Lake Shore Paving Co., Inc., Paducah, Ky. (16c)
 Lalonde, Albert, Co., Sidney, Mont. (25a) (33a)
 Lamb, L. W., Co., Holland, Mich. (21c)
 Lamb, Robt. E., & Son, Inc., Philadelphia, Pa. (37d)
 Lambert Constr. Co., Huntington, W. Va. (47a)
 Lambert, M. T., Co., Atlanta, Ga. (10a)
 Lambeth Constr. Co., Greensboro, N. C. (32a)
 Lambie, C. S., & Co., Amarillo, Texas (42g)
 Lametti & Sons, Inc., St. Paul, Minn. (22a)
 LaMotte, Frank W., Columbia, S. C. (32a)
 Land Constr. Co., St. Joseph, Mo. (15b) (24b)

Landau Bros. Bldg. Co., Pittsburgh, Pa. (37b)
 Landers & Griffin Co., Portsmouth, N. H. (28a)
 Landis Bldg. & Investment Co., Beverly Hills, Calif. (4a)
 Landt, H. R., Oklahoma City, Okla. (35b)
 Lane Constr. Corp., The, Meriden, Conn. (31d)
 Lane, E. V., Corp., Palo Alto, Calif. (4b) (50a)
 Lane, Richard M., Los Angeles, Calif. (4d)
 Lang Co., New Orleans, La. (17a)
 Lang Constr. Co., Inc., Hampton, Va. (45a)
 Langenderfer, Arthur S., Inc., Toledo, Ohio (34d)
 Langenfelder, C. J., & Son, Inc., Baltimore, Md. (31d) (37c)
 Langley Constr. Co., Tulsa, Okla. (35a)
 Laporte, J. A., Inc., Arlington, Va. (45a)
 Largen, L. J., Constr. Co., Kansas City, Mo. (24a)
 Larsen, A. A., Phoenix, Ariz. (2a)
 Larsen, B. O., San Diego, Calif. (4c)
 Larsen, C. A., San Diego, Calif. (4c)
 Larsen, C. C., & Sons, Council Bluffs, Iowa (14b)
 Larsen, Chris, Co., New Orleans, La. (17a)
 Larsen Constr. Co., Seattle, Wash. (46b)
 Larsen Constr. & Engr. Co., Ogden, Utah (43a)
 Larsen, H., Dallas, Texas (42j)
 Larsen, Ira H., Co., San Francisco, Calif. (4a)
 Larsen & Larsen, Inc., San Francisco, Calif. (4a)
 Larson Constr. Co., Pelican Rapids, Minn. (22a)
 Larson Constr. Co., Astoria, Oreg. (36a)
 Larson-Danielson Constr. Co., Inc., La Porte, Ind. (13b)
 Larson, Elmer, Inc., Malta, Ill. (12c)
 Larson, Ernest, Everett, Wash. (46b)
 Larson, Gust G., & Sons, Inc., Rockford, Ill. (12b)
 Larson, John W., Bismarck, N. Dak. (33a)
 Larson, Norman L., Austin, Texas (42f)
 Larson, O. F., & Son, Tacoma, Wash. (46d)
 LaSalle Constr. Co., Chicago, Ill. (12a)
 Lassiter, W. G., West Palm Beach, Fla. (9e)
 Latham Constr. Co., West Palm Beach, Fla. (9e)
 Lathrop, Geo. W., & Sons, Inc., Toledo, Ohio (34e)
 Latta, J. E., Constr. Co., Inc., St. Louis, Mo. (12d) (24b) (24c)
 Laub Constr. Co., Inc., Philadelphia, Pa. (37d)
 Lauch, C. B., Constr. Co., Boise, Idaho (11a)
 Laur & Mack Constr. Co., Inc., Niagara Falls, N. Y. (31a)
 Laurence, Paul A., Co., Minneapolis, Minn. (22a)
 Laurence & Rutledge, Inc., Largo, Fla. (9c)
 Lauter Constr. Co., Philadelphia, Pa. (37d)
 Lavender Bros., Earl, N. C. (32a)
 LaVoy & Scheffler, Fargo, N. Dak. (33a)
 Law Bros. Contr. Corp., Herkimer, N. Y. (31d)

Lawless & Alford, Inc., Austin & Corpus Christi, Texas (42i) (42k)
 Lawrence Constr. Co., Littleton, Colo. (5b)
 Lawrence Constr. Co., Sacramento, Calif. (4a)
 Lawrence Constr. Co., Inc., Baltimore, Md. (19a)
 Laxton Constr. Co., Inc., Charlotte, N. C. (32a)
 Layman & Co., Tulsa, Okla. (35b)
 Layne-Texas Co., Ltd., The, Dallas & Houston, Texas (42j)
 Leake & Goodlett, Inc., Tupelo, Miss. (23d)
 Lease & Leigland, Seattle, Wash. (25a) (46b)
 Leavell, C. H., & Co., El Paso, Texas (42b)
 Lebeck & Co., Minneapolis, Minn. (22a)
 LeBlanc Bros., Baton Rouge, La. (17e)
 LeBlanc, Inc., Houston, Texas (42d)
 Leck, D'Arcy, Constr. Co., Minneapolis, Minn. (22a)
 Leck, Jas., Co., Minneapolis, Minn. (22a)
 Lecoutour Constr. Co., St. Louis, Mo. (24c)
 Lee Constr. Co., San Leandro, Calif. (4b)
 Lee Constr. Co., Charlotte, N. C. (32a)
 Lee Constr. Co., Memphis, Tenn. (41c)
 Lee, Frank H., & Co., West Memphis, Ark. (41c)
 Lee & Johnson, Inc., Sioux City, Iowa (14a) (26b)
 Lee, L. S., & Son, Oaks Corners, N. Y. (31d)
 Lee & Neal, Santa Barbara, Calif. (4d)
 Lee, R. E., & Son, Inc., Charlottesville, Va. (45a)
 Lee, Ray M., Co., Atlanta, Ga. (10a)
 Lee, Robt., Inc., Manning, S. C. (32a)
 Lee, T. H., Corpus Christi, Texas (42j)
 Lefever & Bing, West Sacramento, Calif. (4b)
 Leffler, A. S., Gravel Co., Davison, Mich. (21c)
 Leftwich, Stenis & Harris, Houston, Texas (42d)
 Lehman-Roberts Co., Lexington, Ky. (16a)
 Lehr Constr. Co., St. Joseph, Mo. (L)
 Leifert Constr. Co., Miami, Fla. (9b)
 Leighton, H. N., Co., Minneapolis, Minn. (22a)
 Leimbach Constr. Corp., Baltimore, Md. (19a)
 LeMay, Ralph B., Weslaco, Texas (42o)
 Lembke-Clough & King Co., Inc., Albuquerque, N. Mex. & Las Vegas, Nev. (27b) (30b)
 Lembke Constr. Co., Las Vegas, Nev. (27b)
 Lemoine Bros., Bunkie, La. (17f)
 Lemoine, S. J., & Co., Bunkie, La. (17f)
 Lemon, Haskell, Oklahoma City, Okla. (35b)
 Lena, Nat., Oakland, Calif. (4a)
 Lenci, Lenci & Englund, Inc., Virginia, Minn. (22a)
 Lentz Constr. Co., Sacramento, Calif. (4b)
 Leonard Constr. Co., Chicago, Ill. (12a)
 Leone, Domenic, Constr. Co., Inc., Trinidad, Colo. (5b)
 Leonhard, J. T., Constr. Co., Columbus Junction, Iowa (14a)
 Lerner-Linden Constr. Co., Oak Park, Mich. (21a)
 Leslie, C. E., Kingsville, Texas (42i)
 Leslie, John T., Bailey, Texas (42f)
 Leto Constr. Co., Detroit, Mich. (21a)
 Leva, Adam, Philadelphia, Pa. (37e)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 267). N—National Member (page 375). L—Local Member.

Leva Bros., Philadelphia, Pa. (37e)
 Leva, Furey, Philadelphia, Pa. (37e)
 Levasseur, A. J., Constr. Co., Shreveport, La. (17b)
 Lewis, Anthony, Inc., Maplewood, N. J. (L)
 Lewis & Bowman, Goldsboro, N. C. (32a)
 Lewis Constr. Co., Great Falls, Mont. (25a)
 Lewis & Frisinger Co., The, Ann Arbor, Mich. (21c)
 Lewis & Lewis, Fort Worth, Texas (42c)
 Lewis & McDowell, Inc., New York, N. Y. (31d)
 Lewis, Nelson T., Hayward, Calif. (4a)
 Lewis, P. R., Huntington, W. Va. (47a)
 Lewis, R. C., Constr., Inc., Oakland, Calif. (4a)
 Lewis, T. S., Jr., & Co., Inc., Savannah, Ga. (10a)
 Libbey & Libby Co., Minneapolis, Minn. (22a)
 Libby, Donald V., El Monte, Calif. (4d)
 Liberty Bldg. Co., Pomona, Calif. (4d)
 Lichtefeld, Fred J., & Son, Louisville, Ky. (16b)
 Lichty Constr. Co., Riverton, Wyo. (49a)
 Lien, C. H., Constr. Co., Inc., Rapid City, S. Dak. (40a)
 Liesinger, L. D., Constr. Co., Inc., Casper, Wyo. (49b)
 Lighthouse, S. P., Co., Canonsburg, Pa. (37c)
 Lillebo, Tom, Reedsport, Oreg. (36a)
 Lilly, Roy M., Baton Rouge, La. (17e)
 Linbeck Constr. Corp., Houston, Texas (42d) (42i)
 Lincoln Bldrs., Ruston, La. (17g)
 Lincoln, Martin P., Co., Chicago, Ill. (12a)
 Lind, Geo. W., Portland, Oreg. (36a)
 Lindberg, A., & Sons, Ishpeming, Mich. (21c)
 Lindberg Constr. Co., Jamestown, N. Dak. (33a)
 Lindekugel, G. H., & Sons, Mitchell, S. Dak. (40a)
 Linden & Sons, Inc., Rockford, Ill. (12b)
 Lindgren & Swinerton, Inc., Los Angeles, Calif. (4d)
 Lindsey, J. W. B., Co., Chattanooga, Tenn. (41a)
 Lindstrom Bros., Inc., Portland, Oreg. (36a)
 Lindstrom & Swanson, Inc., Akron, Ohio (34a)
 Lindstrom & Williams, Denver, Colo. (5b)
 Lines Co., The H. Wales, Meriden, Conn. (6a)
 Lininger, M. C., & Sons, Medford, Oreg. (36a)
 Linker, Wm., Co., Inc., Philadelphia, Pa. (37d)
 Linnan, W. B., Pocahontas, Iowa (14a)
 Lippert Bros., Inc., Boone, Iowa & Oklahoma City, Okla. (14a) (14b) (35a)
 Lippert Constr. Co., Oelwein, Iowa (14b)
 Lipscomb, Wm. P., Co., Inc., Washington, D. C. (8a)
 Lissenden, P. C., Co., Inc., West Palm Beach, Fla. (9e)
 List, C. J., Constr. Co., Kansas City, Mo. (23a) (24b)
 List & Clark Construction Company, Kansas City, Mo. (N) (15b) (24b)
 List & Weatherly Constr. Co., Kansas City, Mo. (15b) (24b)

Litchfield Constr. Co., San Rafael, Calif. (4a)
 Little Constr. Co., Inc., Charlotte, N. C. (32a)
 Little, I. C., Dallas, Texas (42m)
 Little, Matthew A., San Francisco, Calif. (4a)
 Lively, Ed., Fairacres, N. Mex. (5b)
 Livingston, C. H., La Porte, Texas (42f)
 Livingston Truck & Material Co., Long Beach, Calif. (4d)
 Lockhart, H. L., Houston, Texas (42d)
 Lockwood, C. W., & Son, Hampton, Va. (45a)
 Lockwood, L. V., Glasgow, Mont. (25a)
 Loesch & Green Constr. Co., The, Cleveland Ohio (34d)
 Lof, John, & Sons, Omaha, Nebr. (26a)
 Logan, W. E., & Sons, Muskogee, Okla. (35b)
 Logue, Chas., Bldg. Co., Newton Highlands, Mass. (20b)
 Lohmann, H. R., Co., Tulsa, Okla. (35a)
 Lombard, J. P., Co., Youngstown, Ohio (34f)
 Lombardi, Robt., Inc., Philadelphia, Pa. (37e)
 Lone Star Constr., Dallas, Texas (42m)
 Long Constr. Co., Billings, Mont. (25a) (46c)
 Long Construction Company, Kansas City, Mo. (N) (24a)
 Long, W. P., Constr. Co., Chattanooga, Tenn. (41a)
 Longhi, Louis, & Son, Glens Falls, N. Y. (31d)
 Longley Constr. Co., Inc., Las Vegas, Nev. (27b)
 Loomis Bros., Cedar Rapids, Iowa (14b)
 Loomis, C. M., Grand Rapids, Mich. (21c)
 Loranger, Theo., & Sons, New Bedford, Mass. (20b)
 Lorber, Melvin, Beverly Hills, Calif. (4d)
 Lord & Bishop, Sacramento, Calif. (4b)
 Lord, P. S., Mechanical Contrs., Portland, Oreg. (36a)
 Los Alamos Constrs., Inc., Los Alamos, N. Mex. (30b)
 Losch, E. C., Co., Paramount, Calif. (4d)
 Loselle Constr. Co., Wyandotte, Mich. (21c)
 Los Gatos Constr. Co., Los Gatos, Calif. (4b)
 Lotz, Wm. F., Philadelphia, Pa. (37d)
 Louisville Asphalt Co., Louisville, Ky. (16b)
 Love, Inc., Charleston, W. Va. (47a)
 Lovejoy Constr. Co., Des Moines, Iowa (14b)
 Lovell & Hart Constr. Co., Lexington, Ky. (16a)
 Lovering Constr. Co., St. Paul, Minn. (22a)
 Loving, T. A., & Co., Goldsboro, N. C. (32a)
 Low, John, Jr., Laurel, Miss. (23d)
 Lowder, Ray D., Inc., Albemarle, N. C. (32a)
 Lowdermilk Bros., Denver, Colo. & Espanola, N. Mex. (5b) (30a)
 Lowe Constr. Co., Marion, Iowa (14a)
 Lowe Constr. Co., Billings, Mont. (25b)
 Lowman, R. D., El Paso, Texas (42b)
 Lowrie Paving Co., San Francisco, Calif. (4b)
 Lowry, E. G., Co., Houston, Texas (42d)
 Lowry, John, Inc., New York City (31c)
 Loyd, Ernest, Fort Worth, Texas (42f)
 Lucke, L. E., Sacramento, Calif. (4b)
 Lueder Constr. Co., Omaha, Nebr. (26a)
 Luedtke Engr. Co., Frankfort, Mich. (21c)

Lugano Bros., Inc., Belleville, N. J. (29a)
 Lundberg, Joe, Constr. Co., Seattle, Wash. (46a)
 Lundeen Constr. Co., Montezuma, Iowa (14a)
 Lundgren, J. A., & Son, Topeka, Kans. (15a)
 Lundin & Grip, Inc., Rockford, Ill. (12b)
 Lupinski, Inc., Milwaukee, Wis. (48a)
 Lupton, A. H., Jr., Bridgeton, N. J. (29a)
 Luth, Fred M., & Sons, Inc., St. Louis, Mo. (24b) (24c)
 Lyles & Buckner Constr., Muskogee, Okla. (35b)
 Lyles & Lang Constr. Co., Columbia, S. C. (32a)
 Lyles, W. M., Co., Avenal, Calif. (4b) (4d)
 Lyman Richey Sand & Gravel Corp., Omaha, Nebr. (26b)
 Lynch, Harry S., Co., Inc., Wilmington, Del. (7a)
 Lynch, M. J., San Francisco, Calif. (4b)
 Lynch, Pugh & Corson, Inc., Morgantown, W. Va. (47a)
 Lynch, Ray W., Oklahoma City, Okla. (35b)
 Lynn & Morsey, San Antonio, Texas (42e)
 Lynn, W. A., Constr. Co., Lincoln, Nebr. (24b) (26b)
 Lyon Constr. Co., Clinton, Mont. (25a)
 Lyons & Breeden, Madisonville, Ky. (16a)
 Lyons, Frank, & Co., Portland, Oreg. (36a)
 Lyons, Wm. T., Co., Inc., The, Baltimore, Md. (19a)
 Lysne Constr. Co., Blooming Prairie, Minn. (22a)
 Lytle, C. F., Co., Sioux City, Iowa (14a)
 Lytle, C. F., Co., & Green Constr. Co., Garrison, N. Dak. & Des Moines, Iowa (33a) (50a)
 Lytle, W. F., Sr., Fort Worth, Texas (42c)

M

M-B Contr. Co., Seattle, Wash. (46a)
 M. G. M. Constr. Co., Concord, Calif. (4b)
 M. J. B. Constr. Co., Stockton, Calif. (4b) (4d)
 M & K Corp., San Francisco, Calif. (4b)
 M & K Corp., Frederickson & Watson Constr. Co., & Pionbo Constr. Co., San Francisco, Calif. (4d)
 M & L Constr. Co., Little Rock, Ark. (3a)
 M. & L Constr. Co., Philadelphia, Pa. (37d)
 M & M Dredg. & Constr. Co., Miami, Fla. (9b)
 M. & R. Constr. Co., East Boston, Mass. (20a)
 M & S Constr. Co., Inc., East Pittsburgh, Pa. (37c)
 Macal Improvement Co., Inc., Antioch, Calif. (4b)
 MacClosky, Chas., Co., San Francisco & Los Angeles, Calif. (4b) (4d)
 Macco Corp., Paramount, Calif. (2a) (4b) (4d) (36a)
 Macco Corp. & Puget Sound Bridge & Dredg. Co., Paramount, Calif. (5b)
 Macdonald Bldg. Co., Tacoma, Wash. (46d)
 Macdonald Constr. Co., St. Louis, Mo. (24c)
 Macdonald Engr. Co., Chicago, Ill. (12a) (37c)
 Macdonald & Kruse, Sun Valley, Calif. (4d)
 Macdonald, Young & Nelson, Inc., San Francisco, Calif. (4b) (4d) (27a)
 MacDougald Constr. Co., Atlanta, Ga. (32a)

A.G.C. DIRECTORY

- Machin, E. C., Inc., Allentown, Pa. (37a)
 MacIsaac, Menke & Co., Los Angeles, Calif. (4d)
 Mack Paving & Constr. Co., Philadelphia, Pa. (37e)
 Mackey, Edwin J., Sacramento, Calif. (4a)
 Mackley & Ralston, Minot, N. Dak. (33a)
 Macclair Asphalt Co., Inc., East St. Louis, Ill. (12c)
 Maclean Constr. Co., Lansing, Mich. (21c)
 MacMillin Co., The, Keene, N. H. (28a)
 MacNamee, Daniel F., & Co., Inc., New Rochelle, N. Y. (31d)
 Macomber, Geo. B. H., Co., Inc., Boston, Mass. (6a) (20b)
 Macon Constr. Co., Franklin, N. C. (32a)
 MacRae Bros., Seattle, Wash. (46a)
 Madden & Larkin, Bossier City, La. (17b)
 Maddox, C. L., Phoenix, Ariz. (2a)
 Madewell Constr. Co., Memphis, Tenn. (41c)
 Madison Constr. Co., Edwardsville, Ill. (12c)
 Madison County Constr. Co., Inc., Madison, N. Y. (31d)
 Madonna Constr. Co., San Luis Obispo, Calif. (4d)
 Madsen Constr. Co., Minneapolis, Minn. (22a)
 Maescher, Chas. V., & Co., Cincinnati, Ohio (34b)
 Magann, W. F., Corp., Portsmouth, Va. (45a)
 Magaw, W. L., Richmond, Ind. (13a)
 Magnolia Constr. Co., Inc., Baton Rouge, La. (17e)
 Magoffin, S. S., Co., Englewood, Colo. (5b)
 Maguire, J. C., & Co., Los Angeles, Calif. (4d)
 Mahoney Constr. Co., Lansing, Mich. (42m)
 Mahony-Troast Constr. Co., Inc., Passaic, N. J. (L)
 Maier, Chas., & Son Co., Milwaukee, Wis. (48a)
 Mainline Constr. Co., Cleveland, Ohio (34c)
 Malanka, C. F., & Sons, Inc., Union City, N. J. (29a)
 Malaspina, Matt, & Co., Seattle, Wash. (46a)
 Malcom, C. T., Portland, Oreg. (36a)
 Malfitano, M., & Son, Inc., Pittsburg, Calif. (4b)
 Malm Construction Company, Newark, N. J. (L)
 Maloney, J. T., & Son, Webster Groves, Mo. (24c)
 Malven & Nicklas, Los Angeles, Calif. (4d)
 Manchester Sand, Gravel & Cement Co., Inc., Manchester, N. H. (28a)
 Mangum, C. C., Raleigh, N. C. (32a)
 Manhattan Construction Co., Muskogee, Oklahoma City, & Tulsa, Okla.; Ft. Smith, Ark. & Houston, Texas (N) (35a)
 Manhattan Construction Co. of Texas, Houston, Texas (42d)
 Mann Constr. Co., Englewood, Colo. (5b)
 Mann Constr. Co., New Albany, Ind. (16b)
 Mannella, Frank, Constr. Co., Pittsburgh, Pa. (37c)
 Mansfield Asphalt Paving Co., Mansfield, Ohio (34d)
 Manson Constr. & Engr. Co., Seattle, Wash. (46b)
 Manson-Osberg Co., Seattle, Wash. (50a)
 Manuel, Paul, Reno, Nev. (27a)
 Marbut, T. F., Emporia, Kans. (15b)
 Marchant Bros. & Balay, Mercedes, Texas (42o)
 Marco Constr. Co., Houston, Texas (42d)
 Marcus, M., Bldg. Co., Cincinnati, Ohio (34b)
 Marden, Edw. R., Corp., Brookline, Mass. (20b)
 Mardian Constr. Co., Phoenix, Ariz. (2a)
 Marhoefer, E. H., Jr. Co., Chicago, Ill. (12a)
 Mariani-O'Brien, Inc., St. Petersburg, Fla. (9c)
 Maring, Harry, Jr., Inc., Bridgeport, Conn. (6a)
 Mario Constr. Co., Inc., Pittsburgh, Pa. (37c)
 Marion Coal & Supply Co., Pittsburgh, Pa. (37c)
 Marion Constr. Corp., Marion, Ohio (34c)
 Mark, Frank, Constr. Co., Philadelphia, Pa. (37e)
 Markham & Brown, Dallas, Texas (23a) (24b)
 Markland, M. B., Contracting Co., Atlantic City, N. J. (L)
 Mark Sand & Gravel Co., Fergus Falls, Minn. (22a)
 Marks, Frank B., Jr., Newman, Calif. (4b)
 Marks, Howard E., Tracy, Calif. (4b)
 Markwart, Howard S., Sacramento, Calif. (4a)
 Marquis, Robt. R., Portsmouth, Va. (45a)
 Marrazzo, Tony, Boise, Idaho (11a)
 Marsch, Louis, Morrisonville, Ill. (12c)
 Marsellis-Warner Corp., Montclair, N. J. (29a)
 Marsh Realty Co., Charlotte, N. C. (32a)
 Marshall Constr. Co., Houston, Texas (42d)
 Marshall Constr. Co., Hermiston, Oreg. (36a)
 Marshall, G. E., Roundup, Mont. (25a)
 Marshall, Haas & Royce, Belmont, Calif. (2a)
 Marshall, J. L., & Sons, Inc., Pawtucket, R. I. (38a)
 Marshall, S. A., Tacna, Ariz. (4b)
 Martell, F. H., Co., Inc., Washington, D. C. (8a)
 Martens, Henry M., Co., Detroit, Mich. (21a)
 Martin, Ben H., Easley, S. C. (32a)
 Martin, Bill, Galveston, Texas (42d)
 Martin Bros. Contrs., Inc., Roanoke, Va. (45a)
 Martin Bros., Inc., Concord, Calif. (4b)
 Martin, Clement, Inc., Pittsburgh, Pa. (37b)
 Martin Constr. Co., Tucson, Ariz. (2a)
 Martin Constr. Co., Boise, Idaho (11a)
 Martin, Dave, Constr. Co., Oklahoma City, Okla. (35a)
 Martin, F. H., Constr. Co., Detroit, Mich. (21a)
 Martin, G. I., Albuquerque, N. Mex. (30a)
 Martin, Geo. C., Washington, D. C. (8a)
 Martin, Guy T., & Co., Gardena, Calif. (4d)
 Martin, J. B., San Antonio, Texas (42e)
 Martin, John B., Co., Oklahoma City, Okla. (35a)
 Martin, John, Co., Inc., Chattanooga, Tenn. (41a)
 Martin, L., & Son, Boston, Mass. (20b)
 Martin & Nettrour Contr. Co., Pittsburgh, Pa. (37b)
 Martin, O. H., Co., Pittsburgh, Pa. (37b) (37c)
 Martin, Vic, Pasadena, Calif. (4d)
 Martineau Constr. Co., Muscatine, Iowa (14b)
 Martiniello, Louis, & Son, Brighton, Mass. (20b)
 Mary Constr. Co., Cape Girardeau, Mo. & East St. Louis, Ill. (12d) (24b)
 Marye-Northwestern Co., Denver, Colo. (5a)
 Mashuda, Frank, Co., Milwaukee, Wis. (37c)
 Mason, C. N., Co., Pensacola, Fla. (9d)
 Mason, Henry M., Co., Inc., Portland, Oreg. (36b)
 Mass, H. H., Constr. Co., Algonquin, Ill. (12c)
 Massacoe Bldrs., Inc., Simsbury, Conn. (6a)
 Massey Pipe Line Constr. Co., Corpus Christi, Texas (42m)
 Massey, W. R., Co., Newton, N. C. (32a)
 Massman Constr. Co., Kansas City, Mo. (24b)
 Master Masons Constr. Co., Philadelphia, Pa. (37d)
 Masters-Jackson Paving Co., Springfield, Mo. (24b)
 Masters & Mullen Constr. Co., The, Cleveland, Ohio (34c)
 Mastriani, S. G., Co., Scranton, Pa. (37a)
 Materne Bros., Spokane, Wash. (46c)
 Mathers, J. S., Inc., Waynesboro, Va. (45a)
 Mathis, A. F., West Des Moines, Iowa (14a)
 Mathis, Claude E., Amarillo, Texas (42g)
 Mathis Constr. Co., Athens, Ga. (10a)
 Match Bros. Paving Co., Colton, Calif. (4d)
 Mattern Constr. Co., Tulsa, Okla. (35a)
 Matthews Constr. Co., Hoisington, Kans. (15b)
 Matthews Construction Company, Princeton, N. J. (L)
 Mattison, R. E., & Co., Oklahoma City, Okla. (35a)
 Mattson, Isak, & Son, Minot, N. Dak. (33a)
 Mattson, W. A., Burlington, Iowa (14b)
 Maurer, Fred J., & Son, Eureka, Calif. (4b)
 Maury, Sam P., Constr. Co., Memphis, Tenn. (41c)
 Maury & Wedaman, Memphis, Tenn. (41c)
 Mautz & Oren, Inc., Effingham, Ill. (12c)
 Maxam Co., The, Portsmouth, N. H. (28a)
 Maxey, Carl E., Lubbock, Texas (42p)
 Maxey & Leftwich, Lubbock, Texas (30b)
 Maxey, Robt. E., Constr. Co., Lubbock, Texas (42p)
 Maxon Construction Company, Inc., Dayton, Ohio (N) (10a) (12c) (17e) (34d) (47a)
 Maxwell Bridge Co., The, Columbus, Kans. (15b) (24b)
 Maxwell Constr. Co., Baytown, Texas (42d)
 Maxwell, W. F., Los Angeles, Calif. (4d)
 May, G. W., Little Rock, Ark. (3a)
 Mayer-Osborn Co., Denver, Colo. (5a)
 Mayersohn, Louis, Albany, N. Y. (31d)
 Mayfield Constr. Co., Kokomo, Ind. (13b)
 Mays, Ernest L., Beaumont, Texas (42f)
 McAbee, F. R., Inc., Seattle, Wash. (46b)
 McAbee, Tom G., Lubbock, Texas (42p)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 267). N—National Member (page 375). L—Local Member.

- McAlister, Albert A., Abilene, Texas (42p)
 McAlister-Davis Co., Memphis, Tenn. (23a)
 McAnulty Inc., Bradenton, Fla. (9c)
 McAnulty & Schwartz, Chico, Calif. (4b)
 McAtee & Heathe, Spokane, Wash. (46c)
 McBride & Son, Inc., Bastrop, La. (17g)
 McCabe, Jas., Chico, Calif. (4a)
 McCall, R. R., Co., Valdosta, Ga. (10a)
 McCalman Constr. Co., Danville, Ill. (12c) (13a)
 McCammon-Wunderlich Co., Palo Alto, Calif. (4b)
 McCann & Co., Inc., Springfield, Ill. (12c)
 McCann Constr. Co., Fort Worth, Texas (42c)
 McCarthy, Ed. A., & Son, Cincinnati, Ohio (34b)
 McCarthy Improvement Co., Davenport, Iowa (12c) (14a)
 McCarthy-Pohl Contrs., Inc., St. Louis, Mo. (24b)
 McCarthy, Robt., Co., San Francisco, Calif. (4a)
 McCartney, Birch, Veradale, Wash. (46c)
 McClanahan, D. S., & Son, Columbus, Miss. (23d)
 McClanahan, Fred C., & Son, Shreveport, La. (17b)
 McClendon Bldg. Service, Gulfport, Miss. (23c)
 McClendon, J. C., Jr., Gulfport, Miss. (23c)
 McCollum Constr. Co., Salina, Kans. (15b)
 McCollum, Paul E., Inc., Richmond, Calif. (4b)
 McConnell Constr. Co., Oklahoma City, Okla. (35b)
 McCorkle, Paul, Constr. Co., Sac City, Iowa (14b)
 McCorkle, Tom, Constr. Co., Boise, Idaho (11a)
 McCormack Constr. Co., Pendleton, Oreg. (36a)
 McCormack, R. C., St. Louis, Mo. (24c)
 McCosker, A. J., Berkeley, Calif. (4b)
 McCosker, John H., Inc., Berkeley, Calif. (4b)
 McCoy, Geo. W., & Co., Inc., New Orleans, La. (17a)
 McCracken & Berry Constr. Co., Ormond Beach, Fla. (9f)
 McCrady, Edw., Jr., & Son, Pittsburgh, Pa. (37c)
 McCrae & Noftsgier, Oklahoma City, Okla. (35a)
 McCray Marine Constr. Co., Seattle, Wash. (46a)
 McCready & Sons, Gaylord, Mich. (21b)
 McCree & Co., St. Paul, Minn. (22a) (40a)
 McCready Constr. Co., Iowa City, Iowa (14b)
 McCreery, Geo. W., Co., Boston, Mass. (20b)
 McCrory, C. E. Constr. Co., Memphis, Tenn. (41c)
 McCullough, Maurice B., Salt Lake City, Utah (43a)
 McDaniel, Boyd J., Co., Abilene, Texas (42p)
 McDaniel Constr. Co., Marysville, Calif. (4a)
 McDermott, J. Ray, & Co., Inc., Harvey, La. (17c)
 McDevitt & Street Company, Charlotte, N. C. (N) (32a) (45a)
 McDonald, Carl C., Jr., Bay Saint Louis, Miss. (23c)
 McDonald Constr. Co., Brainerd, Minn. (22a)
 McDonald Constr. Co., Dallas, Texas (42j)
 McDonald, Henry C., Co., Kilgore, Texas (42j)
 McDougall, Natt, Co., Portland, Oreg. (4b) (36a)
 McDowall & Wood, Salem, Va. (32a)
 McDerry, B. S., Berkeley, Calif. (4b)
 McElvany, J. L., El Centro, Calif. (4d)
 McFadden, Jos., & Son, Palo Alto, Calif. (4b)
 McGeorge Contr. Co., Inc., Pine Bluff, Ark. (3a)
 McGeorge, W. P., Jr., Pine Bluff, Ark. (24b)
 McGillivray Constr. Co., Sacramento, Calif. (4b)
 McGinnis & Gautier, Inc., North Hollywood, Calif. (4d)
 McGinty Constr. Co., Phoenix, Ariz. (2a)
 McGowan, M. B., Inc., San Francisco, Calif. (4b)
 McGranahan, K. J., Santa Cruz, Calif. (4a)
 McGraw, Jas., Co., Philadelphia, Pa. (29a) (37c)
 McGreevey, John F., & Co., Inc., Manasquan, N. J. (29a)
 McGuire Constr. Co., Abilene, Texas (42p)
 McGuire, H. A., Constr. Co., Memphis, Tenn. (41c)
 McGuire & Hester, Oakland, Calif. (4b)
 McGuire, M. T. & John T., Algona, Iowa (14a)
 McHugh, Jas., Constr. Co., Chicago, Ill. (12a)
 McHugh, M. & J. B., Philadelphia Pa. (37c)
 Mellyar, W. K., Constr. Co., Dallas, Texas (42j)
 McInnis Constr. Co., Spokane, Wash. (46c)
 McIntire, F. B., Constr. Co., Fort Worth, Texas (42c)
 McIntosh, W. B., Hopkinsville, Ky. (16c)
 McKean Constr. Co., Salt Lake City, Utah (43a)
 McKee, Robt. E., El Paso & Dallas, Texas (2a) (42a)
 McKee, Robt. E., Gen. Contr., Inc., Glendale, Calif., New Orleans, La., Santa Fe, N. Mex. & El Paso, Texas (4d) (17a) (30b) (42b)
 McKellar, Everett, Chelan, Wash. (46a)
 McKenzie Constr. Co., San Antonio, Texas (42c) (42f) (42j)
 McKenzie Constr. Co., Reno, Nev. (27a)
 McKenzie-Hague-Simmons Co., Minneapolis, Minn. (22a)
 McKenzie, John R., Los Altos, Calif. (4b)
 McKie Lighter Co., Boston, Mass. (20a)
 McKinney Constr. Co., Sunbury, Pa. (37a)
 McKinney, R. W., Nacogdoches, Texas (42f)
 McKinnon Constr. Co., Sandy, Oreg. (36a)
 McKinnon-Decker Co., Helena, Mont. (25b)
 McKittrick, E. S., Co., Inc., Huntington Park, Calif. (4d)
 McKown & Sons, Austin, Texas (42f)
 McKoy-Helgeson Co., Greenville, S. C. (32a)
 McLain Constr. Corp., Buffalo, N. Y. (31d)
 McLaren Bros. Constr. Co., West Palm Beach, Fla. (9e)
 McLaughlin Constr. Co., Livingston, Mont. (25a)
 McLaughlin, Inc., Great Falls, Mont. & Valdez, Alaska (25a) (50a)
 McLean Constr. Co., Springfield, Mo. (24b)
 McLean Contracting Company, Baltimore, Md. (N)
 McLellan, Paul B., Co., Portland, Me. (18a)
 McMahan Constr. Co., Rochester, Ind. (13a)
 McMahan Illinois Corp., Watseka, Ill. (12c)
 McManus, R. H., & Co., Detroit, Mich. (21a)
 McMeekin Constr. Co., Cheraw, S. C. (32a)
 McMichael Concrete Co., Tulsa, Okla. (35b)
 McMichael, W. A., Constr. Co., Shreveport, La. (17b)
 McMillan, Hugh, El Paso, Texas (42f)
 McMillan, W. G., & Son, Lubbock, Texas (42p)
 McMillin-Burkett Constr. Co., Texarkana, Texas (42f)
 McMullen Constr. Co., Asheville, N. C. (32a)
 McMurray, A. R., Constr. Co., Knoxville, Tenn. (41b)
 McNally Constr. Co., Saginaw, Mich. (21c)
 McNally, W. F., Co., Bridgeport, Mich. (21c)
 McNary Dam Contrs., Umatilla, Oreg. (36a)
 McNeil, J. A., Co., Alhambra, Calif. (4d)
 McNeill, J. W., Constr. Co., Sioux City, Iowa (14a)
 McNichol Constr. Co., The, Denver, Colo. (5a)
 McNulty, L. J., Inc., South St. Paul, Minn. (22a)
 McNutt Bros., Eugene, Oreg. (36a)
 McPhail Engineering, Tacoma, Wash. (46d)
 McQuade, Jas. H., & Sons Co., Pittsburgh, Pa. (37c)
 McQuade, John S., Jr., Philadelphia, Pa. (37d)
 McQuaid Constr. Co., Fort Worth, Texas (42c)
 McRae, Farquhar, Savannah, Ga. (10a)
 McShain, Inc., Philadelphia, Pa. (37d)
 McShain, John, Inc., Arlington, Va. (8a)
 McShane Contr. Co., Pittsburgh, Pa. (37c)
 McVean & Barlow, Odessa, Texas (42m)
 McWethy, L. R., Monterey, Calif. (4a)
 McWilliams Dredging Company, New Orleans, La. (N) (23a)
 Meador Constr. Co., Atlanta, Ga. (10a)
 Meadow Constr. Co., Bakersfield, Calif. (4d)
 Meagher, W. J., & Sons, Bay City, Mich. (21c)
 Mecham, M. S., & Sons, South Gate, Calif. (4d)
 Medis, Paul L., Pittsburgh, Pa. (37c)
 Meehan, John, & Son, Philadelphia, Pa. (37c)
 Meek, John L., Los Angeles, Calif. (4d)
 Meers Constr. Co., Dallas, Texas (42a)
 Meers, E. W. G., Constr. Co., Memphis, Tenn. (41c)
 Mefford Constr. Co., Enid, Okla. (35a)
 Megin, W. J., Inc., Naugatuck, Conn. (6a)
 Meinecke-Johnson Co., Fargo, N. Dak. (33a)
 Meisner-Anderson Co., Bismarck, N. Dak. (33a)
 Meisner & Craig, Gulfport, Miss. (23c)
 Meitz-Spears-Dehner Co., Inc., Fort Wayne, Ind. (13a)
 Melberg, Amos, Cedar Rapids, Iowa (14a)
 Mellon-Stuart Co., Pittsburgh, Pa. (37b)

A.G.C. DIRECTORY

- Mellwin Constr. Co., The, Denver, Colo. (5a)
 Menefee Bros. & Alford, Center, Texas (42f)
 Menefee, W. J., Constr. Co., Sedalia, Mo. (24b)
 Mercer-Fraser Co., Eureka, Calif. (4b)
 Merchant Constr. Co., Asheville, N. C. (32a)
 Meredith & Simpson, Thermal, Calif. (4d)
 Meredith, Trent, Oxnard, Calif. (4d)
 Merrill, Ted F., & Sons, Inglewood, Calif. (4d)
 Merritt-Chapman & Scott Corp., New York, N. Y.; New London, Conn.; Washington, D. C.; Cleveland, Ohio & Pasadena, Texas (N) (20a)
 Merritt, E. Philip, San Rafael, Calif. (4a)
 Meshberger Bros. Stone Corp., Linn Grove, Ind. (13a)
 Messenger, A. Lbr. & Milwk. Constr. Co., The, Pittsburgh, Kans. (15a)
 Messer, Frank, & Sons, Inc., Cincinnati, Ohio (34b)
 Messina Bros. Constr. Co., Inc., Kansas City, Mo. (24a)
 Metcalfe Constr. Co., Inc., Kansas City, Mo. (24b)
 Metropolitan Paving Co., Oklahoma City, Okla. (35b)
 Metzger Constr. Corp., Buffalo, N. Y. (31a)
 Meyers, B. E., Inc., Coral Gables, Fla. (9b)
 Meyer, C. R., & Sons Co., Oshkosh, Wis. (48b)
 Meyer Constr. Co., Littleton, Colo. (5a)
 Meyer, Edw. H., Constr. Co., Neenah, Wis. (48b)
 Meyer-Hecht Co., Cincinnati, Ohio (34b)
 Meyer, Robt. Wm., Cadillac, Mich. (21c)
 Meyer, Theo. G., & Sons, San Francisco, Calif. (4a)
 Meyers, Walter, Spokane, Wash. (46c) (46e)
 Meyerson, Albert, Co., Houston, Texas (42d)
 Meyne, Gerhardt F., Co., Chicago, Ill. (12a)
 Michael & Embree, Durham, N. C. (32a)
 Mickelson, John H., Logan, Utah (43a)
 Mickle & Ross Constr. Co., Newton, Iowa (14a)
 Micotto, R. C., Constr. Co., St. Louis, Mo. (24c)
 Mid-America Engr. Corp., Skokie, Ill. (21c)
 Mid-America Paving Co., Inc., Midwest City, Okla. (35b)
 Mid-State Bldrs., Inc., Utica, N. Y. (31d)
 Mid-States Constr. Co., Inc., Mt. Vernon, Ill. (42m)
 Middle States Bituminous Corp., Ashland, Ky. (16a)
 Middlestates Constr. Co., Omaha, Nebr. (26b)
 Middle West Roads Co., Noblesville, Ind. (13a)
 Midland Constrs., Inc., Chicago, Ill. (12a)
 Midland Contr. Co., Midland, Mich. (21c)
 Midstate Constr. Co., San Francisco, Calif. (4a)
 Midstate Constrs., Inc., Hickory, N. C. (32a)
 Midwest Constr. Co., Holton, Kans. (15b)
 Midwest Contr. Co., Minneapolis, Minn. (22a)
 Midwest Constr. Co., Dallas, Texas (42j)
 Midwest PrefCote Co., Kansas City, Mo. (14a) (15b) (24b)
 Midwestern Constrs., Inc., Tulsa, Okla. (42m)
 Midwestern Contrs., Inc., Wheaton, Ill. (42m)
 Mikkelsen, E. C., Constr. Co., Inc., Kirkwood, Mo. (24c)
 Mildenstein, Max, Cedar Rapids, Iowa (14b)
 Miles, L. J., Constr. Co., Fort Worth, Texas (42f)
 Miles & Son, Inc., Merced, Calif. (4b)
 Milette Constr. Co., Cuyahoga Falls, Ohio (34a)
 Miller, A. L., Sacramento, Calif. (4b)
 Miller Bros., Kansas City, Kans. (15b)
 Miller Bros. Constr. Co., Tioga, N. Dak. (33a)
 Miller Bros. Constr. Co., Kansas City, Kans. (24b)
 Miller, C. L., Constr. Co., Seattle, Wash. (46a)
 Miller Constr. Co., Windsor, Vt. (28a)
 Miller-Davis Co., Kalamazoo, Mich. (21b)
 Miller Excavating Co., Inc., Omaha, Nebr. (26a)
 Miller, Geo. E., Reno, Nev. (27a)
 Miller, H. W., Constr. Co., Inc., Covington, Ky. (34b)
 Miller, Haynes, Smith, Inc., Henderson, Nev. (27b)
 Miller, J. H., Inc., Bath, Maine (18a)
 Miller, John G., Constr. Co., Waterloo, Iowa (14a) (14b)
 Miller & Miller, Los Angeles, Calif. (4d)
 Miller & Norton, Dallas, Texas (42a)
 Miller, Paul C., Comstock Park, Mich. (21c)
 Miller & Smith, Albuquerque, N. Mex. (30a)
 Miller-Stauch Constr. Co., Kansas City, Mo. (24a)
 Miller & Strong, Inc., Eugene, Ore. (36a)
 Miller, T., & Sons, Lake Charles, La. (17c) (17e)
 Miller, W. Harley, Martinsburg, W. Va. (47a)
 Milligan, O. D., Constr. Co., Manhattan, Kans. (15a)
 Mills & Jones, St. Petersburg, Fla. (9c)
 Mills, Ralph E., Co., Salem, Va. (45a)
 Millstone, I. E., Constr. Co., St. Louis, Mo. (24c)
 Milner Constr. Co., Richmond, Va. (45a)
 Milone & Tucci, Inc., Tacoma, Wash. (46d)
 Minnotte Bros. Co., Pittsburgh, Pa. (37b)
 Minton Constr. Co., Cleveland, Ohio (34c)
 Mion Constr. Co., Atlanta, Ga. (10a)
 Misco, Inc., Seattle, Wash. (46a)
 Mission Equip. & Constr. Co., Mission, Kans. (15b)
 Mississippi Valley Contr. Co., Inc., Paragould, Ark. (3a)
 Mississippi Valley Engr. & Constr. Co., Memphis, Tenn. (23a) (41c)
 Missner Constr. Co., Chicago, Ill. (12a)
 Missouri Petroleum Prods. Co., Overland, Mo. (24b)
 Missouri Valley Limestone Co., Inc., Des Moines, Iowa (14a)
 Mitchell, C. E., & Sons, Inc., Great Falls, Mont. (25b)
 Mitchell Constr. Co., Fort Worth, Texas (42c)
 Mitchell Contr. Co., Herrin, Ill. (12c)
 Mitchell, E. J., Constr. Co., Wellington, Kans. (15a)
 Mitchell, G. W., San Antonio, Texas (42e)
 Mitchell, H. F., Constr. Co., Burlington, N. C. (32a)
 Mitchell, Harry J., Oroville, Calif. (4a)
 Mitchell, Roy M., Tyler, Texas (42j)
 Mitchell, Russ, Inc., Houston, Texas (42f) (42j)
 Mitton, Walter V., Inc., Augusta, Me. (18a)
 Mittry Constrs., Los Angeles, Calif. (4d)
 Mittry, K. S., Constr. Co., Ft. Collins, Colo. (5b)
 Mitzel Co., The, Cleveland, Ohio (34c)
 Mobley, Clarence, Contr. Co., Augusta, Ga. (10a) (32a)
 Mock, P. C., Constr. Co., Memphis, Tenn. (41c)
 Mock, Thomas M., Tacoma, Wash. (46d)
 Mode & McCracken, Conway, Ark. (3a)
 Modern Bldrs. Constr. Co., Inc., Long Beach, Calif. (4d)
 Modern Bldrs., Inc., Rocky Mount, N. C. (32a)
 Modern Bldg. Co., Chico, Calif. (4a)
 Modernization Constr. Co., Atlanta, Ga. (10a)
 Moe, I. L., & Son, Bayport, Minn. (22a)
 Moeller, Geo., Constr. Co., St. Louis, Mo. (24c)
 Moellering Constr. Co., Fort Wayne, Ind. (13a)
 Mohamed Earthmoving Contr., Phoenix, Ariz. (2a)
 Mohawk Paving Co., Geneva, N. Y. (31d)
 Mohler Constr. Co., Washington, D. C. (8a)
 Mohr Constr. Co., Inc., Kokomo, Ind. (13a)
 Mohr, Henry, Boston, Mass. (20a)
 Moline, E. A., Jamestown, N. Dak. (33a)
 Molony & Rubien Constr. Co., Providence, R. I. (38a)
 Molzahn, Theo. J., & Sons, Inc., La Crosse, Wis. (48b)
 Monaco Constr. Co., The, Bridgeport, Conn. (6a)
 Monaghan, J. H. & N. M., & Assoc. Cos., Derby, Colo. (5b) (15b) (30a) (49a)
 Monaghan & Smith Constr. Co., Derby, Colo. (5b)
 Monarch Engr. Co., Falls City, Nebr. (26b)
 Moncla Constr. Co., The, Shreveport, La. (17b)
 Monmouth Stone Co., Monmouth, Ill. (12c)
 Monroe Constr. Co., Monroe, Wash. (45a)
 Monson Bros., San Francisco, Calif. (4a)
 Montag, C. J., & Sons, Portland, Ore. (36a)
 Montague Constr. Co., Chicago, Ill. (12a)
 Montana Engr. & Constr. Co., Helena, Mont. (25a)
 Montank & Son, Los Angeles, Calif. (4d)
 Montgomery, J. M., & Co., Inc., Los Angeles, Calif. (4d)
 Montgomery, T. M., Auburn, Calif. (4b)
 Mooney, Ed. B., Inc., Hot Springs, Ark. (3a)
 Mooney, W. E., Co., Inc., Washington, D. C. (8a)
 Moore, Bart, Co., San Antonio, Texas (42f)
 Moore Bridge Co., Inc., Ada, Okla. (35b)
 Moore Bros. Constr. Co., Lufkin, Texas (42f)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 267). N—National Member (page 375). L—Local Member.

Moore Bros., Inc., East St. Louis, Ill. (12c) (12d)
 Moore, Cecil L., San Leandro, Calif. (4b)
 Moore Constr. Co., Myrtle Beach, S. C. (32a)
 Moore Constr. Co., Rapid City, S. Dak. (40a)
 Moore Constr. Co., Austin, Texas (42k)
 Moore, E. H., & Sons, San Francisco, Calif. (4a)
 Moore, Fred P., & Son, Casper, Wyo. (49b)
 Moore, G. E., Co., Inc., Greenwood, S. C. (32a)
 Moore, Harold B., Windham, N. Y. (31d)
 Moore, Mehren & Bailey, Madera, Calif. (4d)
 Moore & Moore, LaPorte, Texas (42d)
 Moore, P. J., & Son, West Sacramento, Calif. (4b)
 Moore, Paul, & Assoc., Casper, Wyo. (49b)
 Mora, Gerald, Houston, Texas (42d) (42j)
 Moran, Wm. J., Co., Alhambra, Calif. (4d)
 Morehead Constr. Co., Cedar Rapids, Iowa (14b)
 Morehouse, E. R., Co., Camden, N. J. (29a)
 Moreland Constr. Co., Wichita, Kans. (15a)
 Morettini, F., St. Paul, Minn. (22a)
 Morgan, Arthur, Trucking Co., St. Louis, Mo. (24c)
 Morgan, B. A., Memphis, Tenn. (41c)
 Morgan, E. R., Gastonia, N. C. (32a)
 Morgan, Edw. E., Co., Inc., Jackson, Miss. (23a)
 Morgan-Holloman Constr. Co., Tuscaloosa, Ala. (1a)
 Morgan, J. E., & Sons, El Paso & Dallas, Texas (42a) (42b)
 Morin, S. G., & Sons, Spokane, Wash. (46c)
 Moritz, C. J., Inc., Effingham, Ill. (12c)
 Morrin, M., & Son, Inc., Ogden, Utah (43a)
 Morris Constr. Co., Greenville, S. C. (32a)
 Morris, Robt., Constr. Co., Austin, Texas (42k)
 Morrison, Clarence M., Shelby, N. C. (32a)
 Morrison Constr. Co., Seattle, Wash. (46a)
 Morrison Engr. & Contr. Co., New Roads, La. (17e)
 Morrison-Knudsen Co., Inc., Boise, Idaho; Los Angeles & San Francisco, Calif.; Pendleton, Oreg.; Seattle, Wash. & New York, N. Y. (N) (4b) (4d) (11a) (36a) (46a) (49a) (50a)
 Morrison & Lamping, Walla Walla, Wash. (36a)
 Morrissey, J. D., Inc., Philadelphia, Pa. (37e)
 Morrow Bros., Inc., Baltimore, Md. (19a)
 Morse, W. H., Constr. & Lumber Co., Inc., Bennington, Vt. (28a)
 Mortensen Constr. Co., Seattle, Wash. (50a)
 Mortensen, Nelse, & Co., Inc., Seattle, Wash. (46b)
 Mortensen, Oscar J., Conrad, Mont. (25a)
 Morton, Jas. P., Constr. Co., Placerville, Calif. (4a)
 Moseman, C. K., Redwood City, Calif. (4b)
 Moseman Constr. Co., Inc., Harrisburg, Pa. (37a)
 Moser, F. A., Farmersburg, Iowa (14a)
 Mosher & Kiker, El Reno, Okla. (35b)
 Moss, Edwin, & Son, Inc., Bridgeport, Conn. (6a)
 Moss, R. L., Constr. Co., Zenith, Wash. (46a)

Moss, Rex N., Las Vegas, Nev. (27b)
 Moss-Thornton Co., Inc., Leeds, Ala. (1a)
 Mott Constr. Co., Centerville, Iowa (14a)
 Mott Core Drilling Co., Huntington, W. Va. (47a)
 Mott-Mohr Constr. Co., Inc., New Haven, Conn. (6a)
 Mountain State Constr. Co., South Charleston, W. Va. (47a)
 Mountain States Bldrs., Inc., Casper, Wyo. (49b)
 Mountain States Constr. Co., Inc., Pocatello, Idaho (11a)
 Mouton, J. B., & Sons, Lafayette, La. (17f)
 Mowat, A. F., Constr. Co., Seattle, Wash. (46b)
 Mowery, R. S., & Sons, Inc., Carlisle, Pa. (37a)
 Mozzicato Constr. Co., Medford, Mass. (20b)
 Muehlenbeck, Wm. J., Saginaw, Mich. (21c)
 Mueller, C. W., Louisville, Ky. (16b)
 Mueller Constr. Co., Marshalltown, Iowa (14b)
 Mueller Erection Co., Inc., St. Louis, Mo. (24c)
 Muirhead, Wm., Construction Company, Inc., Durham, N. C. (N) (32a)
 Mulcare, Thos., Corp., Boston, Mass. (20b)
 Mulford, Ben, Bradford, Iowa (14b)
 Mullinix Constr. Co., Oklahoma City, Okla. (35b)
 Mullins, John M., Inc., Troy, N. Y. (31d)
 Mullis, Carl W., Lumber Co., Lancaster, S. C. (32a)
 Munn, Chas. S., Dallas, Texas (42a)
 Munn-McCorkle Co., Atlanta, Ga. (10a)
 Munn & Perkins, Modesto, Calif. (4b)
 Munter, M. P., Co., Seattle, Wash. (46a) (50a)
 Murch-Jarvis Constr. Co., St. Louis, Mo. (12d) (24c)
 Murdock Constr. Co., The, Norwood, Ohio (34b)
 Murphy, Allan, Constr., Evansville, Ind. (13c)
 Murphy Bros., Spokane, Wash. (46c)
 Murphy, Geo. J., & Co., Youngstown, Ohio (34f)
 Murphy, J. C., Baton Rouge, La. (17d)
 Murphy, J. M., Constr. Co., Las Vegas, Nev. (27a)
 Murphy, J. R., Fort Worth, Texas (42c)
 Murphy-McDonnell Co., Upper Darby, Pa. (37d)
 Murphy, Michael, Jr., San Francisco, Calif. (4b)
 Murphy-Quigley & Co., Philadelphia, Pa. (37d)
 Murphy-Smestad Constr. Co., Fargo, N. Dak. (33a)
 Murphy, Wm., & Son, St. Paul, Minn. (22a)
 Murray, C. D., Co., Inc., Syracuse, N. Y. (31d)
 Musick, Don C., Constr. Co., St. Louis, Mo. (24c)
 Muskegon Constr. Co., Muskegon, Mich. (21b)
 Mutersbaugh, A. M., Lake Charles, La. (17c)
 Myers Bros., Los Angeles, Calif. (4d)
 Myers Bros., Ft. Atkinson, Iowa (14a)
 Myers, Geo. M., Inc., El Dorado, Kans. (15b)
 Myers, J. E., Kingsport, Tenn. (41e)

Myers-Johnson Co., Lewistown, Pa. (37c)
 Myers & Quinn, Columbus, Miss. (23d)
 Myers, Ralph, Contr. Corp., Salem, Ind. (13a) (37c)

N

Nagel, J. J., Perham, Minn. (22a)
 Nagelkirk & Ranta, Grand Rapids, Mich. (21c)
 Nally & Hamilton, Bardstown, Ky. (16a)
 Napp-Greco Co., The, Newark, N. J. (29a)
 Nappe Constr. Co., Inc., North Hollywood, Calif. (4d)
 Naranche & Konda, Butte, Mont. (25a)
 Nardulli & Sons Co., Inc., Pittsburgh, Pa. (37c)
 Nash, Glen, Eureka, Calif. (4b)
 Nashert, Walter, Co., Oklahoma City, Okla. (35a)
 Nason & Cullen, Philadelphia, Pa. (37d)
 Nasvik Constr. Co., Bemidji, Minn. (22a)
 National Concrete Fireproofing Co., The, Cleveland, Ohio (34c)
 National Constr. Co., Omaha, Nebr. (26b)
 National Steel & Shipbuilding Corp., San Diego, Calif. (4c)
 National Structures Corp., New York, N. Y. (29a)
 Naugle-Leck, Inc., Minneapolis, Minn. (22a)
 Naumann, John, & Sons, Inc., Toledo, Ohio (34e)
 Navarro Corp., Pittsburgh, Pa. (37b)
 Neal, C. P., Constr. Co., Forest City, N. C. (32a)
 Neal, Vernon C., Inc., Green Cove Springs, Fla. (9a)
 Nebel, Jos. F., Co., Washington, D. C. (8a)
 Nebraska Constr. Co., Lexington, Nebr. (26b)
 Neely, John C., Constr. Co., Wichita, Kans. (15a)
 Neff, Robt. A., Shreveport, La. (17b)
 Neighborgall Constr. Co., Huntington, W. Va. (47a)
 Neiman, H. B., Co., Philadelphia, Pa. (37d)
 Nelson, A. N., Riverton, Wyo. (49b)
 Nelson, Bennie H., Constr. Co., Red Wing, Minn. (22a)
 Nelson, C. L., & Co., Inc., Brainerd, Minn. (22a)
 Nelson, Carl A., & Co., Inc., Burlington, Iowa (14b)
 Nelson, Carl E., Logan, Utah (43a)
 Nelson & Co., Inc., Racine, Wis. (48b)
 Nelson, Geo., & Son, Inc., Madison, Wis. (48b)
 Nelson, Harvey W., Grafton, N. Dak. (33a)
 Nelson, Mullen & Nelson, Inc., Minneapolis, Minn. (22a)
 Nelson, Mullen & Webster, Minneapolis, Minn. (22a)
 Nelson, N. A., Constr. Co., Sheridan, Wyo. (49a) (49b)
 Nelson, Olof, Constr. Co., Logan, Utah (43a)
 Nelson, Peter, & Son, Inc., La Crosse, Wis. (48b)
 Nelson, W. F., Co., San Diego, Calif. (4c)
 Nesmith, Robt. E., Inc., Houston, Texas (42d)
 Ness Constr. Co., Seattle, Wash. (46b)
 Nesto Constr. Co., Newark, N. J. (29a)
 Netherton Co., Shreveport, La. (17e)

A.G.C. DIRECTORY

- Neumann, Arthur H., & Bros., Inc., Des Moines, Iowa (14a) (14b)
 Nevada Engr. & Constr. Co., Reno, Nev. (27a)
 New Jersey Asphalt & Paving Co., Jersey City, N. J. (29a)
 New London Materials & Constr. Co., Willmar, Minn. (22a)
 New State Elec. Co., Phoenix, Ariz. (2a)
 Newbanks, Merrill W., Co., Atlanta, Ga. (10a)
 Newbery Elec. Corp., Los Angeles, Calif. (4d)
 Newbery Elec. Corp. of Arizona, Phoenix, Ariz. (2a)
 Newburn, L. L., Seattle, Wash. (46a)
 Newkirk, A. D., & Son, Jacksonville, Fla. (9a)
 Newland Constr. Co., Everett, Wash. (46b)
 Newman, Stanley W., Co., Inc., Mobile, Ala. (1a)
 Newport Constr. Co., Portland, Ore. (36a)
 Newsome, Douglas E., Columbus, Ga. (10a)
 Newton Constr. Co., Odessa, Texas (42p)
 Newton, Harry, Inc., Graham, Texas (42f)
 Nichols Constr. Co., Geneva, Nebr. (26b)
 Nichols, Harvey A., Los Angeles, Calif. (4d)
 Nichols & Schrader, Charlotte, Iowa (14a)
 Nicholson Co., Inc., The, New York City (31c)
 Nicholson, H. B., Pasadena, Calif. (4d)
 Nicholson, V. L., Co., Knoxville, Tenn. (41b)
 Nicholson, W. J., Santa Clara, Calif. (4a)
 Nicol, Thos., & Co., Farmingdale, N. J. (29a)
 Nielsen Constr. Co., San Diego, Calif. (4c)
 Nielsen, N. R., & Son, Denver, Colo. (5a)
 Nielsen, S. N., Co., Chicago, Ill. (12a)
 Nielsen, Wilbur, Co., Blencoe, Iowa (14a)
 Nilson-Smith Constr. Co., Great Falls, Mont. (25a)
 Nissen, J. K., & Sons, Hayward, Calif. (4b)
 Noble, R. J., Co., Orange, Calif. (4d)
 Nodland, Henry, Co., Alexandria, Minn. (22a)
 Noel, Harry, Spencer, Iowa (14a)
 Noel, W. H., Co., Jamestown, N. Dak. (33a) (40a)
 Nolan, A. T., Co., Minneapolis, Minn. (25a)
 Nolan, E. C., Co., Centerline, Mich. (21c)
 Noland Constr. Co., Dodge City, Kans. (15a)
 Nolen, Jas. F., & Sons, Philadelphia, Pa. (37c)
 Nolte, Geo. V., & Co., Bellingham, Wash. (46a)
 Nomellini Constr. Co., Stockton, Calif. (4b)
 Nonnemaker-Clayton Constr. Co., Atlanta, Ga. (10a)
 Noonan, R. S., Inc., York, Pa. (37a)
 Nora Constr. Co., Palm Beach, Fla. (9c)
 Norcal Excavating & Constr. Co., San Rafael, Calif. (4b)
 Norfolk Bridge & Constr. Co., Norfolk, Nebr. (26b)
 Norlie Constr. Co., Chico, Calif. (4a)
 Normac, Inc., Huntington Park, Calif. (4b)
 Norman, L. A., Lake Charles, La. (17c)
 Norris Constr. Co., Ottumwa, Iowa (14a)
 Norris, Guy J., Seattle, Wash. (36a) (46a)
 North Central Constr. Co., Hampton, Iowa (14a)
 North Seattle Constr. Co., Seattle, Wash. (46a)
 North State Constr. Co., Inc., Rocky Mount, N. C. (32a)
 Northern Constr. Co., Grand Forks, N. Dak. (33a)
 Northern Improvement Co., Fargo, N. Dak. (33a) (40a)
 Northwest Constr. Co., Seattle, Wash. (46a)
 Northwest Precote, Inc., Seattle, Wash. (46a)
 Northwestern Constr. Co., Minneapolis, Minn. (22a)
 Northwestern Engr. Co., Rapid City, S. Dak. & Denver, Colo. (5b) (25a) (26b) (33a) (40a) (49a)
 Nottingham, M. C., Co., Temple City, Calif. (4d)
 Noyes, Donald C., Rutland, Vt. (28a)
 Nunez Constr. Co., Inc., Texas City, Texas (42d)
 Nunn, Paul H., Oklahoma City, Okla. (42j)
 Nutter Constr. Co., Wilmington, Del. (7a)
 Nygren, David, Seattle, Wash. (46a)
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- Oak Constr. Co., Royal Oak, Mich. (21c)
 Oates, C. B., Abilene, Texas (42p)
 Oberg Bros. Constr. Co., Inglewood, Calif. (4d)
 Oberg, Lars, Los Angeles, Calif. (4d)
 Oberg, Steve R., Constr. Co., Sioux Falls, S. Dak. (40a)
 O'Brien, Chas., & Son., Morris, Ill. (12c)
 O'Brien Constr. Co., Great Falls, Mont. (25a)
 O'Brien & Padgett, Memphis, Tenn. (41c)
 O'Bryan, Howard Z., Brattleboro, Vt. (28a)
 O'Callahan, Mickey G., Oakland, Calif. (4b)
 O'Connell & Sweeney, Inc., Cincinnati, Ohio (34b)
 O'Connell's, Daniel, Sons, Inc., Holyoke, Mass. (1)
 O'Connor Bros., Red Bluff, Calif. (4b)
 O'Connor Constr. Co., Springfield, Ill. (12c)
 O'Connor Constr. Co., Fromberg, Mont. (25a)
 O'Connor Constr. Co., Inc., Kalispell, Mont. (25a)
 O'Connor, J. C., & Sons, Inc., Fort Wayne, Ind. (12c) (13a)
 O'Connor, J. D., Constr. Co., Inc., San Rafael, Calif. (4b)
 O'Connor Oakes Co., Gretna, La. (17a)
 Odegard Constr. Co., Everett, Wash. (46b)
 O'Dell & Riney Constr. Co., Kirkwood, Mo. (24b)
 Odman, Arthur, Fair Oaks, Calif. (4a)
 Odum, A. M., Oklahoma City, Okla. (35b)
 Odom, J. M., Austin, Texas (42k)
 Oefflein, Walter W., Inc., Milwaukee, Wis. (48a)
 Ofeco Constr. Co., Inc., Long Beach, Calif. (4d)
 Ogden Constr. Co., Inc., Denver, Colo. (5b)
 O'Hair, W. H., Co., Colusa, Calif. (4b)
 O'Herron, M., Co., Pittsburgh, Pa. (37c)
 Ohio Road Improvement Co., Columbus, Ohio (34d)
 Okes Constr. Co., St. Paul, Minn. (22a)
 Oklahoma Contr. Co., Dallas, Texas (42m)
 Oklahoma Paving Co., Oklahoma City, Okla. (35b)
 Okland Constr. Co., Salt Lake City, Utah (43a)
 Oldt, F. S., Co., Dallas, Texas (42f) (42j)
 Olerich, Walter F., Los Angeles, Calif. (4d)
 Olesen, Jens, & Sons Constr. Co., Waterloo, Iowa (14b)
 Olinger Constr. Co., Huntingburg, Ind. (13a)
 Oliphant, C. F., Hanford, Calif. (4b)
 Oliver, L. W., & Son, Galveston, Texas (42d)
 Olmstead, A. C., Janesville, Wis. (48b)
 Olney, H. B., Inc., East Chicago, Ind. (13b)
 O'Loughlin & Hansen, Rochester, Minn. (22a)
 Olsen, Walter L., Santa Rosa, Calif. (4a)
 Olson, A., Constr. Co., Waterloo, Iowa (12c) (14a)
 Olson & Appleby, New Bedford, Mass. (20b)
 Olson Constr. Co., Lincoln, Nebr.; Salt Lake City, Utah & Denver, Colo. (5a) (26a) (43a)
 Olson, F., Los Angeles, Calif. (4d)
 Olson & Hart, Denver, Colo. (5a)
 Olson, Russell, Constr. Co., Pendleton, Ore. (36a)
 Olson, Sherman, Inc., Chicago, Ill. (12a)
 Olympian Dredging Company, San Francisco, Calif. (4b)
 Oman Construction Company, Nashville, Tenn. (N)
 Oneal, C. E., Co., Inc., Ellensburg, Wash. (46c)
 O'Neil, C. R., Creswell, Ore. (36a)
 O'Neil Constr. Co., The, Havre, Mont. (25a)
 O'Neil, W. E., Constr. Co., Chicago, Ill. (12a)
 Orange Constr. Co., Charleston, W. Va. (47a)
 Orders, W. R., & Son, St. Albans, W. Va. (47a)
 Oregon Asphaltic Paving Co., Portland, Ore. (36a)
 Orheim, I. E., Constr. Co., Minot, N. Dak. (33a)
 O'Rourke Constr. Co., Houston & Dallas, Texas (42a) (42d)
 Orr Constr. Co., Chicago Heights, Ill. (12c)
 Orr, J. C., & Son, Altoona, Pa. (37a)
 Orr, John B., Inc., Miami, Fla. (9b)
 Orr & Orr Constr. Co., Phoenix, Ariz. (2a)
 Orshek, Francis R., Co., Fremont, Nebr. (26b)
 Ortman & Reitze, Meadville, Pa. (37a)
 Osage Constr. Co., Oklahoma City, Okla. (42j)
 Osberg Constr. Co., Seattle, Wash. (46a)
 Osborn Co., Pasadena, Calif. (4d)
 Osceola Constr. Co., Pensacola, Fla. (9d)
 Osterling Constr. Co., Inc., Cherokee, Iowa (14b)
 Ostermann Constr. Co., Jefferson, Iowa (14a)
 Ostermann, Gus, & Sons, Ocheyedan, Iowa (14a)
 Ostrom Constr. Co., Inc., Indianapolis, Ind. (13b)
 Ostruske-Murphy, Inc., Tacoma, Wash. (46d)
 Oswald Bros., Los Angeles, Calif. (4d)
 Otto, C. A., Marysville, Calif. (4a)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 267). N—National Member (page 375). L—Local Member.

Ottosen, R. W., Constr. Co., Inc., Houston, Texas (42d)
 Overaa, C., & Co., Inc., Richmond, Calif. (4a)
 Overland Sand & Gravel Co., Stromsburg, Nebr. (26d)
 Owen-Ames-Kimball Co., Grand Rapids, Mich. (21b)
 Owen Constr. Co., Inc., Greensboro, N. C. (32a)
 Owen, Jas. C., Jr., Memphis, Tenn. (41c)
 Owens, F. W., Co., Louisville, Ky. (16b)
 Owens, J. Sam, Constr. Co., Longview, Texas (42n)
 Owens, R. B., San Angelo, Texas (42p)
 Owens, T. Calvin, Inc., Washington, D. C. (8a)
 Owl Truck & Constr. Co., Compton, Calif. (4b) (4d)
 Oxford Constr. Co., Philadelphia, Pa. (37e)

P

P & E Constr. Co., San Jose, Calif. (4b)
 P & H Constr. Co., Inc., Evansville, Ind. (13c)
 P. & S. Constr. Co., Macon, Mo. (24b)
 P. & W. Constr. Co., Inc., Atlanta, Ga. (10a)
 Pace-Spence Co., Mansfield, Texas (42f)
 Pacific Allied, Burbank, Calif. (4d)
 Pacific Bridge Co., San Francisco, Calif. (4b) (24b)
 Pacific Coast Bldrs., San Francisco, Calif. (4a)
 Pacific Co., The, Berkeley, Calif. (4a)
 Pacific Constr. Co., Seattle, Wash. (46a)
 Pacific Construction Co., Ltd., Honolulu, T. H. (L)
 Pacific Contr. Corp., Newport Beach, Calif. (4d)
 Pacific Crane & Rigging Co., Los Angeles, Calif. (4d)
 Pacific Pavements Co., Ltd., San Francisco, Calif. (4b)
 Pacific Pipe Welders, Walnut Creek, Calif. (4b)
 Pacific Pipeline Constr. Co., Portland, Ore. (36a)
 Pacific Pipeline Constr. Co., Montebello, Calif. (4d)
 Pacific Sand & Gravel Co., Centralia, Wash. (46d)
 Packtor, Edw., Co., Wethersfield, Conn. (6a)
 Padgett, John W., & Sons, Fort Worth, Texas (42c)
 Page Corp. & T. M. Page, Monrovia, Calif. (4d)
 Page, Holland, Austin, Texas (42f)
 Pagenhart, C. C., Rochester, Minn. (22a)
 Paine-Gallucci, Inc., Tacoma, Wash. (46d)
 Palisades Contrs., Irwin, Idaho (11a)
 Pallesen Constr. Co., Oklahoma City, Okla. (35b)
 Palmberg, H. G., Astoria, Ore. (36a)
 Palmer-Smith Co., Detroit, Mich. (21a)
 Palombo, D. Sons, Pittsburgh, Pa. (37c)
 Panama-Williams Co., Houston, Texas (42m)
 Panelcrete of California, Inc., San Jose, Calif. (4a)
 Panelcrete Engr. Co., Los Angeles, Calif. (2a)
 Pangia Constr. Co., Atco, N. J. (29a)
 Panhandle Constr. Co., Lubbock, Texas (42f)

Papin, J. C., Sandy, Ore. (36a)
 Pappin Constr. Co., Great Falls, Mont. (25b)
 Parda, T. J., Pensacola, Fla. (9d)
 Pardue Constr. Co., Commerce, Ga. (10a)
 Parham-Darr Constr. Co., High Point, N. C. (32a)
 Parish Bros., Benicia, Calif. (4b)
 Park Concrete Co., Palmyra, N. J. (29a)
 Park Constr. Co., Minneapolis, Minn. (22a)
 Park, Paul Co., Storm Lake, Iowa (14b)
 Park-Ward Co., Oklahoma City, Okla. (35b)
 Parker Constr. Co., Harlingen, Texas (42o)
 Parker & Fuhrman Co., Portland, Ore. (36a)
 Parker, H. Earl, Inc., Marysville, Calif. (4b)
 Parker-Johnson Co., Portland, Ore. (36b)
 Parker, O. E., & Co., Inc., Covington, Va. (45a)
 Parker-Schram Co., Portland, Ore. (36a)
 Parker, Steffens & Pearce, San Francisco, Calif. (4a)
 Parker, W. J., Constr. Co., Omaha, Nebr. (40a)
 Parkhill Constr. Co., Inc., Washington, D. C. (8a)
 Parkhill-Wade, Los Angeles, Calif. (4d)
 Parks, John, Co., Chattanooga, Tenn. (41a)
 Parks, T. U., Co., Chattanooga, Tenn. (41a)
 Parlor City Constr. Co., Endicott, N. Y. (31d)
 Parrott, B. F., & Co., Inc., Roanoke, Va. (45a) (47a)
 Parrott, O. J., Dallas, Texas (42j)
 Parson & Fife Constr. Co., Brigham City, Utah (43a)
 Parsons Constr. Co., Omaha, Nebr. (26a)
 Parsons, Ralph M., Co., The, Los Angeles, Calif. (4d)
 Paschall-Sanders Constr. Co., Fort Worth, Texas (42c)
 Pasco Constr. Co., Sioux Falls, S. Dak. (40a)
 Pasquale Constr. Co., Endicott, N. Y. (31d)
 Pate, J. F., Constr. Co., Mobile, Ala. (1a)
 Paterson Constr. Co., Inc., New Haven, Conn. (6a)
 Patricelli, John, Seattle, Wash. (46a)
 Patrick, W. W., Daytona Beach, Fla. (9f)
 Patterson Constr. Co., Monongahela, Pa. (37c)
 Patterson, Dean, Constr. Co., Burlington, N. C. (32a)
 Patterson, Geo. R., Stockton, Calif. (4b)
 Patterson, W. H., & Co., Baton Rouge, La. (17e)
 Patti-MacDonald Constr. Co., Anchorage, Alaska (50a)
 Patti, S., Constr. Co., Inc., Kansas City, Mo. (24a)
 Patton, R. L., Constr. Co., Keokuk, Iowa (14b)
 Patton-Tully Transportation Co., Memphis, Tenn. (23a)
 Paugh & Brown, Inc., Cleveland, Ohio (34c)
 Paul, G. A., Birmingham, Ala. (1a)
 Paulsen Constr. Co., Salt Lake City, Utah (43a)
 Paulson, O. F., Constr. Co., Cedar Rapids, Iowa (14b)
 Paulus, Robt., Constr. Co., St. Louis, Mo. (24c)
 Pavement Planing Co., Los Angeles, Calif. (4d)
 Payne Constr. Co., Inc., Oakland, Calif. (4a)

Payne, Dale, Phoenix, Ariz. (2a)
 Payne & Dolan, Inc., Chicago, Ill. (24b)
 Payne & Dolan of Wisconsin, Inc., Milwaukee, Wis. (21c)
 Payne, Frank A., & Son, Berkeley, Calif. (4a)
 Payne, G. J., Co., Inc., Los Angeles, Calif. (4d)
 Payne & Harris, Chattanooga, Tenn. (41a)
 Payton, J. A., Riverside, Calif. (4d)
 Pearce, Frank S., Co., Rockford, Ill. (12b)
 Pearce, T. H., & Co., Columbus, Ga. (10a)
 Pearce, John R., Constr. Co., Denver, Colo. (5a)
 Pearson Constr. Co., Inc., Benton Harbor, Mich. (21b)
 Pecel, B., & Sons, North Hollywood, Calif. (4d)
 Peck, C. L., Los Angeles, Calif. (4d)
 Peck & Udell Constr. Co., The, Cleveland, Ohio (34c)
 Peck, W. D., & Co., Inc., Houston, Texas (42d)
 Peckham Road Corp., White Plains, N. Y. (31d)
 Peden Constr. Co., Inc., Greenville, S. C. (32a)
 Pedersen Bros., Inc., Montevideo, Minn. (22a)
 Pederson, P. O., Inc., North Branch, Minn. (22a)
 Peerless Constr. Co., New York, N. Y. (31d)
 Peira, U., & Son, San Francisco, Calif. (4b)
 Peirce Constr. Co., The, Toledo, Ohio (34d)
 Pellicione, D., & Co., Weirton, W. Va. (47a)
 Pelphrey & Basham, Inc., Fort Worth, Texas (42j)
 Pelphrey Farquhar, Inc., Fort Worth, Texas (42f)
 Pelphrey, L. W., Co., Gladewater, Texas (42f)
 Pelphrey, W. O., Fort Worth, Texas (42f)
 Pemberton Bldrs., Inc., Plant City, Fla. (9c)
 Pence Constr. Corp., Bellaire, Texas (42d)
 Penker Constr. Co., The, Cincinnati, Ohio (34b)
 Pennell & Haigler, Inc., Lenoir, N. C. (32a)
 Pennig, E. J., Co., St. Paul, Minn. (22a)
 Pennington & Winter Constr. Co., Oklahoma City, Okla. (42j)
 Penny, M. N., Lawrence, Kans. (15b)
 Pentzien, Inc., Omaha, Nebr. (26b)
 Penzel Constr. Co., Jackson, Mo. (24b)
 Perelli Contr. Co., Inc., Pemberton, N. J. (29a)
 Peres, Geo., Richmond, Calif. (4b)
 Perini, B., & Sons, Inc., Pittsburgh, Pa. & Framingham, Mass. (31d) (37c)
 Perkins Bros., Portland, Ore. (36a)
 Perkinson, Henry L., Constr. Co., St. Louis, Mo. (24b) (24c)
 Perlmutter, Abe, Constr. Co., Inc., Denver, Colo. (5a)
 Permanent Bldrs., Inc., Clarksburg, W. Va. (47a)
 Permanent Constr. Co., Chicago, Ill. (12a)
 Perrilliat-Rickey Constr. Co., Inc., New Orleans, La. (17a)
 Perry, Arthur F., Co., Jacksonville, Fla. (9a)
 Perry, B. F., Akron, Ohio (34a)
 Perry Constr. Co., Chicago, Ill. (12a)
 Perry Engr. Co., Winchester, Va. (45a)
 Perry, Hal, Benton, Ky. (16c)

A.G.C. DIRECTORY

- Perry, J. W., San Antonio, Texas (42f)
 Persun Constr. Co., Huntington, W. Va. (47a)
 Perusini Constr. Co., Homewood, Ala. (1a)
 Pesa, Felix, & Sons Co., The, Youngstown, Ohio (34f)
 Peters, A. J., & Son, San Jose, Calif. (4b)
 Peters Constr. Co., Milwaukee, Wis. (48a)
 Peters, John M., Constr. Co., Cleveland, Ohio (34c)
 Peters, Paul C., Co., Toledo, Ohio (34b)
 Petersen, A. V. Co., Portland, Oreg. (36b)
 Petersen, N. A., Austin, Minn. (22a)
 Peterson & Baker, Los Angeles, Calif. (4d)
 Peterson Bros., Laurens, Iowa (14a)
 Peterson, C. A., & Sons, Rock Rapids, Iowa (14b)
 Peterson, C. W., North Hollywood, Calif. (4b)
 Peterson, C. Norman, Constr., Berkeley, Calif. (4a)
 Peterson, Carl H., Co., Minneapolis, Minn. (22a)
 Peterson Constr. Co., Minneapolis, Minn. & Eau Claire, Wis. (22a) (48b)
 Peterson Constr. Co., Los Altos, Calif. (4a)
 Peterson Constr. Co., Dallas, Texas (42a)
 Peterson, E. H., & Son, Richmond, Calif. (4b)
 Peterson, Etlin E., Casper, Wyo. (49a)
 Peterson, Garbi & Joseph, Inc., North Little Rock, Ark. (3a)
 Peterson, H. M., & Co., Portland, Oreg. (36a)
 Petrillo, Edw. J., Inc., Red Bank, N. J. (29a)
 Petroleum Sales, Div. of Fortier Transp. Co., Fresno, Calif. (4b)
 Petry, N. G., Constr. Co., Denver, Colo. (5a)
 Pettyjohn, F. S., Alamosa, Colo. (5b)
 Pettyjohn, John P., & Co., Lynchburg, Va. (45a)
 Pew, Arthur, Constr. Co., Atlanta, Ga. (10a)
 Pew Constr. Co., Missoula, Mont. (25b)
 Peyronnin Constr. Co., Evansville, Ind. (13c)
 Phelps-Drake Co., Inc., Minneapolis, Minn. (22a)
 Phelps, Judson H., San Antonio, Texas (42e)
 Phelps-Wagner Bldrs., Battle Creek, Mich. (21b)
 Phend & Brown, Milford, Ind. (13a)
 Phifer, Jesse P., Constr. Co., Rockingham, N. C. (32a)
 Phillips, Alton V., Seattle, Wash. (46a)
 Phillips, C. S., Petaluma, Calif. (4a)
 Phillips Constr. Co., Lancaster, S. C. (32a)
 Phillips, John W., Corpus Christi, Texas (42i)
 Phipps, Gerald H., Inc., Denver, Colo. (5a)
 Phoenix Constr. Co., Inc., Bakersfield, Calif. (4d)
 Phoenix Constr. Co., Inc., & Oilfields Trucking Co., Bakersfield, Calif. (4b)
 Phoenix-Tempe Stone Co., Phoenix, Ariz. (2a)
 Piazza, Leo F., Paving Co., San Jose, Calif. (4b)
 Pickett & Nelson, Idaho Falls, Idaho (11a)
 Pickitt, Harry, Allegan, Mich. (21c)
 Pickler, M. C., Constr. Co., Inc., Aberdeen, N. C. (32a)
 Piedmont Constr. Co., Inc., Winston-Salem, N. C. (32a)
 Piehl, Myron T., Williams Bay, Wis. (48b)
 Pieler Constr. Co., Seattle, Wash. (46a)
 Pierson Constr. Co., Baton Rouge, La. (17e)
 Pierson Constr. Co., Saginaw, Mich. (21c)
 Pike, A. F., Houston, Texas (42d)
 Pilot, Lawrence E., Philadelphia, Pa. (37e)
 Pine Bluff Sand & Gravel Co., Pine Bluff, Ark. (23a)
 Pine Flat Contrs., Sanger, Calif. (4b)
 Pinner, Arthur, Jr., Los Angeles, Calif. (2a)
 Pinnix, R. H., Gastonia, N. C. (32a)
 Piombo Constr. Co., San Francisco, Calif. (4b)
 Pioneer Constr. Co., Chattanooga, Tenn. (41a)
 Pioneer Constrs., Inc., Tucson, Ariz. (2a)
 Pioneer Contr. Co., Inc., Memphis, Tenn. (23a)
 Pipe Line Constr. & Drilling Co., Camp Hill, Pa. (42m)
 Pipe Line Constrs., Bakersfield, Calif. (4d)
 Piper Bros., Cambridge, Mass. (20b)
 Piracci Constr. Co., Inc., Baltimore, Md. (19a)
 Pittman Constr. Co., New Orleans, La. (17d)
 Pitts, Elmo, Marlow, Okla. (35b)
 Pittsburgh-Des Moines Steel Co., Des Moines, Iowa & Pittsburgh, Pa. (14a) (37c)
 Plank, J. C., Houston, Texas (42d)
 Plate Constr. Co., Inc., Parkersburg, W. Va. (47a)
 Plath, Eric E., Spokane, Wash. (46e)
 Platoff Constr. Co., Louisville, Ky. (16b)
 Platt Contr. Co., Inc., East Cambridge, Mass. (20b)
 Platte Valley Constr. Co., Grand Island, Nebr. (26b)
 Player Realty & Constr. Co., Fayetteville, N. C. (32a)
 Plewe Constr. Co., Salt Lake City, Utah (43a)
 Plier Constr. Co., Fort Worth, Texas (42c)
 Plozai, Jos., Inc., Detroit, Mich. (21c)
 Plummer, J. Lee, Inc., Sewickley, Pa. (37c)
 Plunkett, North H., & Co., Long Beach, Calif. (4d)
 Plymate, Clay, Co., Inc., Oklahoma City, Okla. (35b)
 Poe, T. W., & Sons, Inc., Durham, N. C. (32a)
 Pohl, Jos. L., Nevada, Mo. (24b)
 Pohlman & Wilbanks, Monroe, La. (17e)
 Poirier & McLane Corp., New York, N. Y. (29a)
 Poley-Abrams Corp., Brookline Village, Mass. (20b)
 Polk Constr. Co., Lakeland, Fla. (9c)
 Pollock, Geo., Co., Sacramento, Calif. (4b) (4d)
 Pomeroy, J. H., & Co., Inc., San Francisco, Calif. (4b) (50a)
 Ponder, Dan R., Inc., El Paso, Texas (42b)
 Ponsford Bros., El Paso, Texas (42b)
 Pontarelli & Sons, Philadelphia, Pa. (37e)
 Pope, S. A., Rock Hill, S. C. (32a)
 Popejoy, Glenn, Ulysses, Kans. (15b)
 Porath, Julius, & Son Co., Detroit, Mich. (21c)
 Poriss, Benjamin F., Hartford, Conn. (6a)
 Poriss, S. C., Constr. Co., The, Hartford, Conn. (6a)
 Port City Constr. Co., Inc., Lake Charles, La. (17c)
 Porter-DeWitt Constr. Co., Poplar Bluff, Mo. (23a) (24b)
 Porter, Henry D., & Co., Lynchburg, Va. (45a)
 Porter, Wm. H., Co., Inc., Watertown, Mass. (20b)
 Porterfield-Binger Constr. Co., Youngstown, Ohio (37c)
 Portland Road & Drive Co., Portland, Oreg. (36a)
 Portland Tug & Barge Co., Seattle, Wash. (36a)
 Posthumus, Gerritt, Wayne, Mich. (21c)
 Poston Sand & Gravel, Lawton, Okla. (35b)
 Potashnick, R. B., Cape Girardeau, Mo. (12c) (23a) (24b) (42m)
 Potter-DeWitt Corp., Pavilion, N. Y. (31d)
 Potter-Horn, Inc., Boston, Mass. (20b)
 Potter, John W., Fort Worth, Texas (42c)
 Potter-Shackelford Constr. Co., Greenville, S. C. (32a)
 Potters Lumber Co., The, East Liverpool, Ohio (34f)
 Pound, Murphey, Constr. Co., Columbus, Ga. (10a)
 Powell Bros., Inc., Ft. Lauderdale, Fla. (9b)
 Powell, E. C., Great Falls, Mont. (25a)
 Powell, Jas. F., Jr., Raleigh, N. C. (32a)
 Powell, L. D., Constr. Co., Memphis, Tenn. (41c)
 Power, Chas. A., Spokane, Wash. (46c)
 Powers, J. J., Co., Cambridge, Mass. (20b)
 Powers, T. F., Constr. Co., Fargo, N. Dak. (33a)
 Powers-Thompson Constr. Co., Joliet, Ill. (12c) (13a)
 Pozzo Constr. Co., Ltd., Los Angeles, Calif. (4d)
 Prassel, Victor, San Antonio, Texas (42e)
 Prather, W. F., Inc., West Palm Beach, Fla. (9e)
 Prati & Prati, El Paso, Texas (42b)
 Price, Vido S., & Glenn Graham, Los Angeles, Calif. (4d)
 Precon Co., Inc., Reno, Nev. (27a)
 Precour Constr. Co., Oshkosh, Wis. (48b)
 Prepack Concrete Company, The, San Francisco, Calif.; Chicago, Ill.; Philadelphia, Pa.; Boston, Mass.; Denver, Colo.; Atlanta, Ga.; Cleveland, Ohio & Seattle, Wash. (N) (4b) (46a)
 Prescott Constr. Co., Inc., Washington, D. C. (8a)
 Price, F. H., & Co., Lansing, Mich. (21c)
 Price, H. C., Co., Bartlesville, Okla. (42m)
 Price, Lyle, Flagstaff, Ariz. (2a)
 Price & Price, Inc., Lafayette, Ind. (13b)
 Price, R. M., Co., Altadena, Calif. (4d)
 Price, W. T., Dredg. Corp., Miami, Fla. (9b)
 Prichard, Thos. J., Jr., Fresno, Calif. (4a)
 Priestor Constr. Co., Davenport, Iowa (14b)
 Priester, L. B., & Son, Meridian, Miss. (23d)
 Princeville Stone Co., Princeville, Ill. (12c)
 Probasco, Geo. A., Inc., Reno, Nev. (27a)
 Procon, Inc., Saint Paul Park, Minn. (22a)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 267). N—National Member (page 375). L—Local Member.

Profenno, Camillo, Co., Portland, Me. (18a)
 Progressive Bldrs., Inc., Pennsauken, N. J. (37e)
 Proksch Constr. Co., Iron River, Mich. (21c)
 Propst, Ben B., Concord, N. C. (32a)
 Propst Constr. Co., Inc., Concord, N. C. (32a)
 Provo Bros., Inc., Syracuse, N. Y. (31d)
 Psaty & Fuhrmann, Inc., New York City (31c)
 Puckett, Taylor E., Daytona Beach, Fla. (9f)
 Puget Sound Bridge & Dredg. Co., Seattle, Wash. (46a) (46b)
 Pugh Constr. Corp., San Pedro, Calif. (4d)
 Pugh, John T., Rochester, Ind. (13b)
 Pumnea, Forrest D., Helena, Mont. (25a)
 Purdy Constr. Co., The, Mansfield, Ohio (34d)
 Purington, O. D., Co., Inc., Providence, R. I. (38a)
 Purtell, Harold, Constr. Co., St. Paul, Minn. (22a)
 Purtzer & Dutton, Norton, Kans. (15b)
 Putney, John H., Constr. Co., Oklahoma City, Okla. (35a)
 Pyle, J. E., Little Rock, Ark. (3a)
 Pyramid Constr. Co., Wilmington, N. C. (32a)



Quad City Constr. Co., Inc., Rock Island, Ill. (12c) (14a)
 Quappaw Co., The, Picher, Okla. (35b)
 Quealy Constr. Co., Ft. Dodge, Iowa (14a)
 Quillian's Concrete Prods., Holly Hill, Fla. (9f)
 Quinlan Constr. Co., Kansas City, Mo. (24a)
 Quinn & Conant, Los Angeles, Calif. (4d)
 Quinn Constr. Co., Kansas City, Mo. (24b)
 Quinn-Robbins Co., Inc., Boise, Idaho (11a)
 Quisile Constr. Co., Fort Worth, Texas (42c)

R

R & M Constr. Co., Central Point, Oreg. (36a)
 R. & M. Constr. Co., St. Louis, Mo. (24c)
 R. & R. Constr. Co., Alton, Ill. (12d)
 Rabalais, E. E., & Son, Bunkie, La. (17f)
 Radich & Fergusson, Inc., Burbank, Calif. (4d)
 Radkovich, Wm., Co., Los Angeles, Calif. (4d)
 Rados, Steve P., Los Angeles, Calif. (4d)
 Radtke, Wm., & Son, Gilroy, Calif. (4b)
 Raff & Dexter, Lansing, Mich. (21c)
 Rafferty, John E., Jr., Inc., Philadelphia, Pa. (37d)
 Ragland, Troy, Austin, Texas (42k)
 Ragner-Benson, Inc., Pittsburgh, Pa. (37b)
 Ragner Bros., Pittsburgh, Pa. (37c)
 Rahn, John F., Inc., East Chicago, Ind. (13b)
 Railing, W. C., Woodland, Calif. (4b)
 Raines, J. A., Muskogee, Okla. (35b)
 Raisch, A. G., Co., San Rafael, Calif. (4b)
 Raisch, A. J., Paving Co., San Jose, Calif. (4b)
 Rambo Constr. Co., Fort Worth, Texas (42c)
 Ramey Constr. Co., Amarillo, Texas (42g)
 Ramljak, M., Los Angeles, Calif. (4d)
 Ramsey, A. A., & Son, Shelby, N. C. (32a)
 Ramsey Bros. Bldrs., Reno, Nev. (27a)

Ramsey, H. F., Co., Inc., Asheville, N. C. (32a)
 Rand Constr. Co., Rapid City, S. Dak. (40a)
 Rand, J. F., & Son, Boston, Mass. (20b)
 Randall, W. R., & Son, Rock Hill, S. C. (32a)
 Rankin, D. W., Inc., Cleveland, Ohio (34c)
 Ranon & Jimenez, Tampa, Fla. (9c)
 Ransdell Constr. Co., Dallas, Texas (42a) (42j)
 Ransome Co., Emeryville, Calif. (4b)
 Rapp Constr. Co., Santa Rosa, Calif. (4b)
 Rappaport, Alfred M., Sarasota, Fla. (9c)
 Rappoli, Edmund J., Co., Inc., Cambridge, Mass. (20b)
 Ratcliff Bros. Constr. Co., Liberty, Texas (42b)
 Ratcliff, Constr. Co., Fort Worth, Texas (42c)
 Ratcliff, J. E., Alexandria, La. (17f)
 Ratliff, H., Rogers, Texas (42f)
 Rau Constr. Co., Kansas City, Mo. (24a)
 Rawlings, Wm. S., Co., Kansas City, Mo. (24a)
 Ray & Son, Inc., Louisiana, Mo. (24b)
 Raymond, Ace S., Logan, Utah (43a)
 Raymond Concrete Pile Co., New York, N. Y.; Los Angeles, Oakland & San Francisco, Calif.; Pittsburgh & Philadelphia, Pa.; Washington, D. C.; Atlanta, Ga.; Baltimore, Md.; Boston, Mass.; Chicago, Ill.; Portland, Oreg.; Detroit, Mich.; Kansas City & St. Louis, Mo.; Syracuse, N. Y.; Houston, Texas; Miami, Fla.; New Orleans, La.; Cleveland, Ohio; Salt Lake City, Utah & Seattle, Wash. (N) (10a) (36a)
 Rea Constr. Co., Charlotte, N. C. (32a)
 Rea, Wayne L., Corpus Christi, Texas (42j)
 Read, A. H., Co., Cheyenne, Wyo. (26b) (49a)
 Read Constr. Co., Cheyenne, Wyo. (5b) (49a)
 Ready-Mix Concrete Co., Reno, Nev. (27a)
 Ready Mix Concrete Co., Pascagoula, Miss. (23c)
 Reagan, Wm. M., & Sons, Inc., Columbia, S. C. (32a)
 Reardon, J. J., Constr. Co., Enid, Okla. (35a)
 Reason, Edw., Pittsburgh, Pa. (37c)
 Redding & Co., Inc., Baltimore, Md. (19a)
 Redding, Harold L., & Assoc., Lawton, Okla. (35a)
 Reddington, J. D., Indianapolis, Ind. (13b)
 Red Eagle Corp., The, Columbus, Ohio (34d)
 Red River Constr. Co., Shreveport, La. (42j)
 Reece Constr. Co., Scandia, Kans. (15b)
 Reed & Aber, Inc., Asheville, N. C. (32a)
 Reed Constr. Co., Inc., Mishawaka, Ind. (13a)
 Reed Constr. Corp., Miami Beach, Fla. (9b)
 Reed, Duffy, Constr. Co., Twin Falls, Idaho (11a)
 Reed, M. T., Constr. Co., Jackson, Miss. (23b)
 Reed & Martin, Inc., Fairbanks, Alaska (50a)
 Reed & Stone, Essex Junction, Vt. (28a)
 Reeder, E. H., Constr. Co., Dallas, Texas (42j)
 Reese, Herbert, Greenbush, Minn. (22a)
 Reese, Morrison W., San Jose, Calif. (4a)

Reeves, C. E., & Sons, Fayetteville, N. C. (32a)
 Reeves, F. M., & Sons, Austin, Texas (42f)
 Reeves, J. R., Sacramento, Calif. (4b)
 Regan, C. T., Constr. Co., The, Cleveland, Ohio (34c)
 Regen, J. B., Nashville, Tenn. (41d)
 Regenhardt Constr. Co., Cape Girardeau, Mo. (12c)
 Reich, Hugh D., Austin, Texas (42k)
 Reid, A. R., Co., San Francisco, Calif. (4b)
 Reid-Baldwin, Wichita Falls, Texas (42p)
 Reid Contr. Co., Inc., Woodbridge, N. J. (20a)
 Reid & Hope, Suffolk, Va. (45a)
 Reid, R. J., Contr. Co., Birmingham, Ala. (23a)
 Reilly, Michael H., New Orleans, La. (17a)
 Reilly, Thos. A., Co., Chester, Pa. (37e)
 Reimer, C. F., Constr. Co., Inc., Marshalltown, Iowa (14b)
 Reimers & Jolivet, Portland, Oreg. (36b)
 Reindollar, I., & Son, Inc., York, Pa. (37a)
 Reinecke, E. W., Co., Fayetteville, N. C. (32a)
 Reinke, Carl J., & Sons, South Bend, Ind. (13b)
 Reis, A. F., Topeka, Kans. (15b)
 Rendle, Jas. B., Co., Malden, Mass. (20a)
 Rendle, Roy B., & Co., Inc., East Boston, Mass. (20a)
 Reniger Constr. Co., Lansing, Mich. (21b)
 Reno Constr. Co., Overland Park, Kans. (15b) (24b)
 Rentenbach & Wright, Inc., Kingsport, Tenn. (41e)
 Rentlor Co., Inc., Grand Island, Nebr. (26b)
 Renz, Geo. C., Gilroy, Calif. (4b)
 Replogle, C. F., Circleville, Ohio (34d)
 Repp & Mundt, Inc., Columbus, Ind. (13b)
 Rexroad, L. W., & Son, Salina, Kans. (15b)
 Rexroth & Rexroth, Bakersfield, Calif. (4d)
 Reynolds Constr. Co., Springville, Utah (43a)
 Reynolds, Roland T., Anaheim, Calif. (4d)
 Reynolds & Walker, Inc., Twin Falls, Idaho (11a)
 Reynolds & Williams, Little Rock, Ark. & Shreveport, La. (3a) (17e)
 Rheiner, A. E., & Co., San Antonio, Texas (42e)
 Rheiner, D. J., Constr. Co., San Antonio, Texas (42e)
 Rheinstein Constr. Co., Inc., New York City (31c)
 Rhoades Constr. Co., Inc., Newton, Kans. (15b)
 Rhoades-Shofner Constr. Co., Inc., Los Angeles, Calif. (4d)
 Rhodes, Jon K., Constr. Co., Fort Worth, Texas (42c)
 Rhoten Constr. Co., Columbus, Ohio (34d)
 Rice Bros., Inc., Marysville, Calif. (4b)
 Rice, Jas. F., Columbia, S. C. (32a)
 Rice, Jos. N., Inc., New Haven, Conn. (6a)
 Richards, Floyd, Amarillo, Texas (42g)
 Richards, Gene, Inc., Fresno, Calif. (4b)
 Richardson Constr. Co., Birmingham, Ala. (1a)
 Richardson Constr. Co., Inc., Cincinnati, Ohio (34b)
 Richardson, Lou, Miles City, Mont. (25a) (33a) (40a)

A.G.C. DIRECTORY

- Richardson, P. L., Co., Little Rock, Ark. (3a)
- Richter Transfer Co., Cincinnati, Ohio (34b)
- Rickey, Horace B., Inc., Lafayette, La. (17f)
- Rider Constr. Co., Charleroi, Pa. (37c)
- Riedesel Constr. Co., Billings, Mont. (25a)
- Riedesel-Lowe Co., Cheyenne, Wyo. (49b)
- Riegel, A. V., Inc., White Plains, N. Y. (31d)
- Riess, John, New Orleans, La. (17a)
- Rieth-Riley Constr. Co., Goshen, Ind. (12c) (13a) (21c)
- Rife, A. J., Constr. Co., Dallas, Texas (42a)
- Rifle, David T., Inc., Pittsburgh, Pa. (37b)
- Riha Constr. Co., La Mesa, Calif. (4c)
- Riley, J. E., & Son, Santa Ana, Calif. (41)
- Riley, Wm. A., Paving & Constr. Co., Inc., St. Louis, Mo. (24c)
- Rinderknecht, R. W., Co., Inc., Cedar Rapids, Iowa (14b)
- Riney, L. W., Constr. Co., Hannibal, Mo. (24b)
- Ringland-Johnson, Inc., Des Moines, Iowa (14b)
- Ringwald, W. H., & Sons Co., The, Chillicothe, Ohio (34d)
- Rinner, George, Constr. Co., Inc., Topeka, Kans. (15a)
- Rippy, E. J., & Sons, New Castle, Colo. (5b)
- Risk Pipe & Constr. Co., Nebraska City, Nebr. (26b)
- Ritchie Bros. Constr. Co., Wichita, Kans. (15b)
- Ritchie, Walter L., Malden, Mass. (20b)
- Ritter Bros., Harrisburg, Pa. (37a)
- Rives Constr. Co., Birmingham, Ala. (1a)
- Road Contr. Co. of Westfield, Westfield, N. J. (29a)
- Robbins & White, Inc., Westbrook, Me. (18a)
- Roberts Constr. Co., Corinth, Miss. (23d)
- Roberts Constr. Co., Lincoln, Nebr. (26b)
- Roberts, J. P., Rome, Ga. (10a)
- Roberts, Jack A., Birmingham, Ala. (1a)
- Roberts, Jas. A., Houston, Texas (42d)
- Roberts, John H. C., Reno, Nev. (27a)
- Roberts & Long Constr. Co., Mobile, Ala. (1a)
- Roberts, R. W., & Co., Inkster P. O., Mich. (21c)
- Robertson, Alex. Co., Paramount & Walnut Creek, Calif. (4b) (4d)
- Robertson, W. H., Inc., Sacramento, Calif. (4a)
- Robertson, Hay & Wallace, Portland, Ore. (36b)
- Robertson-Henry Co., Huntington, W. Va. (47a)
- Robertson, W. E., Co., Los Angeles, Calif. (4d)
- Robie Constr. Co., Inc., Manchester, N. H. (28a)
- Robins Engr., Birmingham, Ala. (1a)
- Robinson Bros. Contrs., Inc., Asheville, N. C. (32a)
- Robinson, Howard, Co., Anchorage, Alaska (50a)
- Robinson, Robt. M., Owensboro, Ky. (16a)
- Robinson & Wilson, San Bernardino, Calif. (4d)
- Robison Constr. Co., Pittsburgh, Pa. (37b)
- Robson, R. M., Portland, Ore. (35a)
- Rochester Coal-Trucking & Constr. Co., Rochester, Pa. (37c)
- Rocho, Edw. M., Constr. Co., Inc., Freeport, Ill. (12c)
- Rock City Constr. Co., Nashville, Tenn. (41d)
- Rock Hill Asphalt & Constr. Co., Clayton, Mo. (24b)
- Rock Road Constr. Co., Chicago, Ill. (13a)
- Rockford Black Top Constr. Co., Rockford, Ill. (12c)
- Roden Constr. Co., Fort Worth, Texas (42c)
- Rodgers, H. N., & Sons Co., Memphis, Tenn. (23a)
- Rodiger Constr., Inc., Cleveland, Ohio (34c)
- Roehl Constr. Co., Knoxville, Tenn. (41b)
- Roehm Bros., Inc., Terre Haute, Ind. (13b)
- Roel Constr. Co., Fargo, N. Dak. (33a)
- Rogers, Chas. J., Inc., Detroit, Mich. (21a) (21c)
- Rogers Constr. Co., Portland, Ore. (36a) (46c)
- Rogers Constr. Co. & Babler Bros., Portland, Ore. (50a)
- Rogers, H. A., & Sons, Lebo, Kans. (15b)
- Rogers, Ira, Topeka, Kans. (15b)
- Rogers, J. P., 1/a Rogers Constr. Co., Smithfield, N. C. (32a)
- Rogers, Jos. W., Succasunna, N. J. (29a)
- Rogers, Luther T., Wilmington, N. C. (32a)
- Rogers & McGrath, Washington, D. C. (8a)
- Rogers, Platt, Inc., Pueblo, Colo. (5b)
- Rognstad-Olsen Constr. Co., Casper, Wyo. (49b)
- Rohleder, Chas. F., Philadelphia, Pa. (37d)
- Roland Constr. Co., Alexandria, La. (17e)
- Roland Constr. Co., Dallas, Texas (42a)
- Roller, Geo. H., Co., Inc., Williamsport, Pa. (37a)
- Romano, Toney, Co., Seattle, Wash. (46a)
- Romero & Theall, Youngsville, La. (17f)
- Rommel, Geo. H., Co., Louisville, Ky. (16b)
- Romney, G. Maurice, Salt Lake City, Utah (43a)
- Rooney, Frank J., Inc., Miami, Fla. (9b)
- Rorick Constr. Co., Omaha, Nebr. (26a)
- Roscoe, W. P., Co., Billings, Mont. (49a)
- Rose Constr. Co., Abilene, Texas (42p)
- Rose Constrs., Houston, Texas (42d)
- Rose, D. J., & Son, Rocky Mount, N. C. (32a)
- Rose, W. P., Constr. Co., Atlanta, Ga. (10a)
- Rosewall, T. H., Watsonville, Calif. (4a)
- Ross, Jas., Assocs., Inc., Concord, N. H. (28a)
- Ross, John N., Charlottesville, Va. (45a)
- Ross Sand Co., Concordia, Kans. (15b)
- Rothschild, Raffen & Weirick, San Francisco, Calif. (4b)
- Rottmayer Constr. Co., Akron, Ohio (34a)
- Rounds, Chas. J., Los Angeles, Calif. (4d)
- Rounds Constr. Co., Rapid City, S. Dak. (40a)
- Rouse, R. N., & Co., Goldsboro, N. C. (32a)
- Rousseau, Oliver, Constr. Co., San Francisco, Calif. (4b)
- Rowe Constr. Co., Bloomington, Ill. (12c)
- Rowley Constr. Co., Pawtucket, R. I. (38a)
- Rowley, Fred C., & Sons, Inc., Hammond, Ind. (13b)
- Royden, H. L., Phoenix, Ariz. (2a)
- Royse & de Vriend, Sacramento, Calif. (4b)
- Rubin Constr. Co., West Palm Beach, Fla. (9e)
- Ruby Constr. Co., Inc., Madisonville, Ky. (16c)
- Ruby, H. W., Sacramento, Calif. (4b)
- Ruby, M. E., San Marcos, Texas (42f)
- Ruch Constr. Co., The, Toledo, Ohio (34e)
- Ruckman-Hansen, Inc., Fort Wayne, Ind. (13a) (21c)
- Ruddy, M. J., & Son, Modesto, Calif. (4b)
- Rue Constr. Co., Bismarck, N. Dak. (33a)
- Rue Contr. Co., Fargo, N. Dak. & Palmer, Alaska (33a) (50a)
- Ruebel, S. A., & Co., Cincinnati, Ohio (34b)
- Ruedy, Eugene, Co., Portland, Ore. (32a)
- Rueth, Leo, & Sons, Inc., Hammond, Ind. (13b)
- Ruff, John K., Co., Baltimore, Md. (19a)
- Ruibley & Kuerten, Inc., Toledo, Ohio (34e)
- Rule, C. F., Constr. Co., Nashville, Tenn. (41d)
- Rumsey & Co., Seattle, Wash. (46a)
- Rundell, Frank R., Austin, Texas (42k)
- Runels, R. E., Constr. Co., Lowell, Mass. (20b)
- Runquist Co., Savannah, Mo. (24b)
- Rupert Constr. Co., Wilmington, Del. (7a)
- Rupp Bros., Inc., Kittanning, Pa. (37c)
- Ruscon Constr. Co., Charleston, S. C. (32a)
- Rushlight Automatic Sprinkler Co., Portland, Ore. (36a)
- Rushlight-Macri, Anchorage, Alaska (50a)
- Russell-Gillett Co., Cle Elum, Wash. (46a)
- Rust Constr. Corp., Evansville, Ind. (13c)
- Rust Engineering Co., The, Pittsburgh, Pa.; Washington, D. C.; New York, N. Y. & Birmingham, Ala. (N)
- Rust, Henry R., Inc., Philadelphia, Pa. (37d)
- Rutherford, Geo. A., Co., The, Cleveland, Ohio (34c)
- Rutland Contr. Co., Decatur, Ga. (10a)
- Ruud Constr. Co., Spokane, Wash. (46e)
- Ryan Constr. Corp., Evansville, Ind. (13a) (13c)
- Ryan Constr. Corp., New York City (31c)
- Ryan, J. H., & Son, Albuquerque, N. Mex. (30a)
- Ryan, R. R., Constr. Co., Oklahoma City, Okla. (35b)

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- S. A. E. Co., Redwood City, Calif. (4b)
- S & B Constr. Co., Coral Gables, Fla. (9b)
- S. E. Pipeline Constr. Co., Whittier, Calif. (4d)
- S & F Constr. Co., Spokane, Wash. (46c)
- S. M. H. Constr. Co., Peoria, Ill. (12c)
- S & Q Constr. Co., San Francisco, Calif. (4b)
- S & W Constr. Co., Memphis, Tenn. (41c)
- Sablain, Ray, Lansing, Mich. (21c)
- Saigh, N. A., Co., Inc., San Antonio, Texas (42m)
- Saine Co., Orlando, Fla. (9c)
- St. John Co., The, Miami, Fla. (9b)
- St. Joseph Fuel Oil & Mfg. Co., St. Joseph, Mo. (24b)
- St. Louis Steel Erection Co., St. Louis, Mo. (24c)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 267). N—National Member (page 375). L—Local Member.

- St. Paul Dredging Co., St. Paul, Minn. (22a)
 Sale, Paul L., Steel Mfg. Co., Inc., Mesa, Ariz. (2a)
 Salem Sand & Gravel Co., Salem, Oreg. (36a)
 Saliba, N. M., Co., Los Angeles, Calif. (4d)
 Salina Constr. & Supply Co., Inc., Syracuse, N. Y. (31d)
 Salley, W. C., Monroe, La. (17g)
 Salmon Bros., Inc., Netcong, N. J. (29a)
 Salmond, Scrimshaw Constr. Co., Arlington, N. J. (1)
 Salvidge, E. J., Constr. Co., Youngstown, Ohio (34f)
 Samford, A. C., Inc., Albany, Ga. (10a)
 Samuel, B. H., & Sons, Portland, Oreg. (36a)
 Sanctis Constr., Inc., Pittsburgh, Pa. (37c)
 Sand Kay Constr. Co., Ephrata, Wash. (46c)
 Sanders Constr. Corp., Portland, Me. (18a)
 Sanders, L. L., Little Rock, Ark. (23a)
 Sanders, Marthame, & Co., Atlanta, Ga. (10a)
 Sandstrom & Hafner, Duluth, Minn. (22a)
 Sanford Constr. Co., Inc., Sanford, N. C. (32a)
 Sanford, W. H., Corp., Terre Haute, Ind. (13b)
 Sangamo Constr. Co., Springfield, Ill. (12c)
 Sani Constr. Co., Des Moines, Iowa (14a)
 Sankey Bros., Inc., Springfield, Ill. (12c)
 San Leandro Constr. Co., San Leandro, Calif. (4b)
 Sanneman Bros. Constr. Co., Pauline, Kans. (15a)
 San-Ore Constr. Co., McPherson, Kans. (5b) (15b) (26b)
 Santa Barbara Crane Service, Santa Barbara, Calif. (4d)
 San Xavier Rock & Sand Co., Tucson, Ariz. (2a)
 Sapp, J. Hilbert, Inc., Orlando, Fla. (9c)
 Sargent, B. H., West Branch, Mich. (21c)
 Sargent Constr. Co., Saginaw, Mich. (21c)
 Sargent Excavating Co., Inc., Topeka, Kans. (15b)
 Sargl, G., Beaumont, Texas (42b)
 Sartorio, Peter, San Francisco, Calif. (4a)
 Sather & Sons, Yardley, Wash. (46c)
 Sauers Constr. Co., Inc., St. Paul, Minn. (22a)
 Sault, L. H., St. Paul, Minn. (22a)
 Sauter, Godfrey, Philadelphia, Pa. (37d)
 Savage, John L., Carson City, Nev. (27a)
 Savin Constr. Corp., The, East Hartford, Conn. (31d)
 Sawallisch Constr. Co., El Reno, Okla. (35b)
 Sawyer Constr. Co., Hampton, Va. (45a)
 Sawyer, Paul, Sand & Gravel Co., Holdrege, Nebr. (26b)
 Saxton, A. H., & Sons, Corvallis, Oreg. (36a)
 Scalzo, Thos., Co., Seattle, Wash. (46a)
 Scandoli Constr. Co., Rockford, Ill. (12b)
 Scarsella Bros., Seattle, Wash. (46a)
 Sceva Constr. Co., Spokane, Wash. (46c)
 Schader, A. D., San Francisco, Calif. (4b) (4d)
 Schaefer, Henry R., Co., Davenport, Iowa (14b)
 Schell, Fred W., San Francisco, Calif. (4a)
 Schenkel, Wm. P., & Sons, Fort Wayne, Ind. (13b)
 Schepertle, Roy A., Constr. Co., Jefferson City, Mo. (24a)
 Scherrer, Dan, Constr. Co., Kansas City, Kans. (15b)
 Scheumann & Johnson, Seattle, Wash. (46a)
 Schickli, J. U., & Bros., Louisville, Ky. (16b)
 Schildberg Constr. Co., Greenfield, Iowa (14a)
 Schilling, G. E., Engr. & Constr. Co., Inc., Reno, Nev. (27a)
 Schimkat, Art, Constr., Onida, S. Dak. (40a)
 Schirmer-Peterson Co., The, Cleveland, Ohio (34c)
 Schirmer-Schneider Co., The, Cleveland, Ohio (34c)
 Schloss, Wm. L., Asphalt Paving Co., Cleveland, Ohio (34c)
 Schmeling, E. W., & Sons, Inc., Rockford, Ill. (12b)
 Schmidt Constr. Co., Grand Junction, Colo. (5b)
 Schmidt Constr. Co., Winfield, Iowa (14a)
 Schmidt, Leo W., Co., Cleveland, Ohio (34c)
 Schmitt, H., & Son, Inc., Milwaukee, Wis. (48a)
 Schneider, Al J., Co., Shively, Ky. (16b)
 Schneider Constr. Co., Houston, Texas (42d) (42b)
 Schneider, H. W., Parkersburg, W. Va. (47a)
 Schnuerle, A. W., Aberdeen, S. Dak. (40a)
 Schoolnick, Louis, Constr. Co., Hartford, Conn. (6a)
 Schrader Constr. Co., Portland, Oreg. (36a)
 Schroeder & Co., Inc., Sun Valley, Calif. (4d)
 Schroeder, H. F., & Sons, Arcadia, Iowa (14a)
 Schultz & Lindsay Constr. Co., Fargo, N. Dak. (33a)
 Schumacher, Peter, & Sons, Inc., Mishawaka, Ind. (13b)
 Schumaker Constr. Co., Michigan City, Ind. (13b)
 Schutt, R. L., Co., Indianapolis, Ind. (13a)
 Schwab, P. Earl, Winona, Minn. (22a)
 Schwaderer, E. B., & Co., Cass City, Mich. (21c)
 Schwake, M. G., Constr. Co., Gardenville, Nev. (27a)
 Schwalbe, F. R., & Son, La Crosse, Wis. (48b)
 Schwartz, David, Russell, Kans. (15b)
 Schwartz, Ted, Grass Valley, Calif. (4b)
 Schweiger Constr. Co., Kansas City, Mo. (24a)
 Schweitzer, Adrian L., Osborne, Kans. (15b)
 Schwertner, Chas. H., & Son, Philadelphia, Pa. (37d)
 Schwoppe Bros., San Antonio, Texas (42f)
 Schworm, Ivan W., Grawn, Mich. (21c)
 Schye & Sullivan, White Sulphur Springs, Mont. (25a)
 Sciaba & Co., Boston, Mass. (20b)
 Scothorn Constr. Co., Cherokee, Iowa (14a)
 Scott Constr. Co., Thomasville, Ga. (10a)
 Scott, F. L., & Son, San Antonio, Texas (42c)
 Scott, W. H., Inc., Franklin, Va. (32a) (45a)
 Scufari Constr. Co., Inc., Niagara Falls, N. Y. (31a)
 Scullen, S. A., Waterford, N. Y. (31d)
 Sculley, C. F., Constr. Co., St. Paul, Minn. (22a)
 Scully Bros., Cincinnati, Ohio (34b)
 Seaboard Constr. Co., Chelsea, Mass. (20a)
 Seabright Constr. Co., Wheeling, W. Va. (47a)
 Seaman Co., Pittsburgh, Pa. (37b)
 Sears, M. J., Denver, Colo. (5b)
 Seastrunk, F. J., Elec. Co., Inc., Columbia, S. C. (32a)
 Seattle Contr. Co., Seattle, Wash. (46a)
 Sebco, Inc., Minneapolis, Minn. (22a)
 Security Bldg. Co., Inc., Rockford, Ill. (12b)
 Security Constr. Co., Daytona Beach, Fla. (9f)
 Seines, C. S., Constr. Co., Inc., Chehalis, Wash. (46d)
 Seiple, Stanford C., Sunbury, Pa. (37a)
 Selander, Edw., Lakewood, Colo. (5b)
 Sell, F. H., Constr. Co., Wichita, Kans. (15a)
 Sellen, John H., Constr. Co., Seattle, Wash. (46b) (46d)
 Selmer Co., The, Green Bay, Wis. (48b)
 Selzer-Ornst Co., Wauwatosa, Wis. (48a)
 Semands, Martin B., Conroe, Texas (42d)
 Semo Constr. Co., Inc., Sikeston, Mo. (1)
 Seneca Petroleum Co., Inc., Chicago, Ill. (12c)
 Senior and Palmer, Inc., New York, N. Y. (1) (29a)
 Senne, Geo., & Co., Topeka, Kans. (15a)
 Sennes Corp., Los Angeles, Calif. (4d)
 Serafini Constr. Co., Inc., Binghamton, N. Y. (31d)
 Sessinghaus & Ostergaard, Inc., Erie, Pa. (37a)
 Seth Homes, Inc., Lincolnton, N. C. (32a)
 Sette Engr. Co., Paramus, N. J. (29a)
 Settergren, E. E., Portland, Oreg. (36b)
 Settle, Robt. E., Topeka, Kans. (15a)
 Severson-Schlitz, Inc., Janesville, Wis. (48b)
 Seward & Shurtleff, Fort Worth, Texas (42c)
 Seymour, John W., Raleigh, N. C. (32a)
 Shackelford, O. L., Inc., Kinston, N. C. (32a)
 Shaffer, Leonard, Co., Philadelphia, Pa. (37d)
 Shakofsky, S. P., Constr. Co., University City, Mo. (24c)
 Shakopee General Constr., Inc., Shakopee, Minn. (22a)
 Shamrock Constr. Co., Oklahoma City, Okla. (35a)
 Shandles, H. M., Philadelphia, Pa. (37d)
 Shaner, W. G., & Sons, Philadelphia, Pa. (37c)
 Shanks, A. J., Constr. Co., Watseka, Ill. (12c)
 Shannon, Chas., Co., Butte, Mont. (25a)
 Shappert Engr. Co., Belvidere, Ill. (12c)
 Sharp Bros. Contr. Co., The, Kansas City, Mo. (24a)
 Sharp & Fellows Contr. Co., Los Angeles, Calif. (4b) (4d) (30a)
 Sharp, Otis W., & Son, Inc., New Orleans, La. (17a)
 Sharpe, W. L., Contr. Co., Memphis, Tenn. (41c)
 Sharrock, J. A., & Sons, Marshall, Texas (42a)
 Sharrock & Pursel, Casper, Wyo. (49a)
 Shaw, Donald F., Los Angeles, Calif. (4d)
 Shaw, J. A., Constr. Co., Fargo, N. Dak. (33a)
 Shaw, M. E., Contr. Co., Macon, Ga. (10a)
 Shaw, N. F., Inc., Anchorage, Alaska (50a)
 Shea Co., The, Alhambra, Calif. (4d)

A.G.C. DIRECTORY

- Shearer, A. C., Co., Chapel Hill, N. C. (32a)
 Shears, J. H., Sons, Inc., Hutchinson, Kans. (15b)
 Shedd, Wm. S., Yuba City, Calif. (4a)
 Sheehan Constr. Co., Indianapolis, Ind. (13a)
 Sheehan Pipe Line Constr. Co., Tulsa, Okla. (42m)
 Sheets Constr. Co., Gardena, Calif. (4d)
 Sheets, W. A., & Sons, Inc., Fort Wayne, Ind. (13b)
 Shelby Constr. Corp., Shelbyville, Ind. (13b)
 Shelgren, Roy A., St. Paul, Minn. (22a)
 Shelton Mill & Constr. Co., Las Vegas, Nev. (27b)
 Shelton & Son, Omaha, Nebr. (26a)
 Shelton, W. C., Co., The, Lawton, Okla. (35a)
 Shenk, Henry, Co., Erie, Pa. (37a)
 Shepherd, J. C., Shreveport, La. (17b)
 Sheridan-Punaro Co., Macon, Ga. (10a)
 Sherman Machine & Iron Works, Oklahoma City, Okla. (42j)
 Sherry-Richards Co., Chicago, Ill. (12a)
 Sherwood, A. G., Constr. Co., Independence, Kans. (15b)
 Sherwood Constr. Co., Inc., Wichita, Kans. (15b)
 Shift, Murray J., Constr. Co., Tucson, Ariz. (2a)
 Shilling, L. D., Eugene, Oreg. (36a)
 Shingledecker, H. C., Pontiac, Mich. (21c)
 Shinn Constr. Co., North Miami, Fla. (9b)
 Shipp, C. H., Constr. Co., Durham, N. C. (32a)
 Shirey, C. W., Waterloo, Iowa (14a)
 Shirley Constr. Co., Minot, N. Dak. (33a)
 Shirley Constr. Co., Inc., Omaha, Nebr. (14a)
 Shirley-Herman Co., Inc., Buffalo, N. Y. (31a)
 Shockey, Howard, & Sons, Inc., Winchester, Va. (45a)
 Shockley, C. G., Constr. Co., Columbia, S. C. (32a)
 Shoemaker, Frank L., Sturgis, Mich. (21b)
 Shoemaker, R. M., Co., Philadelphia, Pa. (37d)
 Shoffner & Sons Constr. Co., Springfield, Mo. (24b)
 Shook, Chas. H., Dayton, Ohio (34b)
 Shore, Henry, Co., Littleton, Colo. (5b)
 Short, Harry E., Tile Co., Denver, Colo. (5a)
 Shotwell, J. D., Co., Tacoma, Wash. (46d)
 Showalter, F. L., Inc., Lynchburg, Va. (32a) (45a)
 Shrum, Clyde M., Clarksburg, W. Va. (47a)
 Shuck, E. F., Seattle, Wash. (46b)
 Shuman Constr. Co., Boston, Mass. (20b)
 Shutrump, Chas., & Sons Co., The, Youngstown, Ohio (34f)
 Shuttle, A., & Co., Inc., Jenkintown, Pa. (47a)
 Siderits Constr. Co., Milwaukee, Wis. (48a)
 Siegfried, Jos. E., Lafayette, Ind. (13b)
 Siert, John, Chinook, Mont. (25b)
 Siesel Constr. Co., Milwaukee, Wis. & Pittsburgh, Pa. (37b) (48a)
 Sievers Constr. Co., Sedalia, Mo. (24a)
 Silva & Hill Constr. Co., Los Angeles, Calif. (4d)
 Silver, E. M., Albuquerque, N. Mex. (30a)
 Silver State Constr. Co., Inc., Fallon, Nev. (27a)
 Simek, Frank, Bottineau, N. Dak. (33a)
 Simmons Constr. Co., Cheyenne, Wyo. (49b)
 Simmons, J. L., Company, Inc., Decatur & Chicago, Ill. & Indianapolis, Ind. (L) (12a) (13b)
 Simon, A. L., Constr. Co., Wilmington, N. C. (32a)
 Simonds, E. T., Constr. Co., Carbondale, Ill. (12c)
 Simpson, Eugene, & Bro., Alexandria, Va. (45a)
 Simpson, Wm., Constr. Co., The, Los Angeles, Calif. (4d)
 Sinclair, John M., Providence, R. I. (38a)
 Singleton, Musick & Co., Amarillo, Texas (42g)
 Sinnock, Pomeroy, Stockton, Calif. (4b)
 Sioux Falls Construction Company, Sioux Falls, S. Dak. (L)
 Sira, Ben, & Co., Dallas Texas (42f) (42j)
 Siri, Arthur B., Inc., Santa Rosa, Calif. (4b)
 Sistare, A. T., Constr. Co., Inc., Spartanburg, S. C. (32a)
 Sivley, W. Rufus, Abilene, Texas (42p)
 Sjoberg, N. H., & Son, Oakland, Calif. (4a)
 Sjoboen Bros., Olympia, Wash. (46d)
 Sjostrom & Sons, Inc., Rockford, Ill. (12b)
 Skelton, Ray W., Co., Inc., Minneapolis, Minn. (22a)
 Skilken, Jos., & Co., Columbus, Ohio (34b)
 Skilton Engr. & Constr. Corp., Louisville, Ky. (16b)
 Skinker & Garrett, Washington, D. C. (8a)
 Skinner, Dean, Austin, Texas (42f)
 Skinner & Ruddock, Inc., Charleston, S. C. (32a)
 Skousen, D. D., & Son, Albuquerque, N. Mex. (30a)
 Skousen-Hise Contr. Co., Albuquerque, N. Mex. (30a)
 Skousen, W. R., Mesa, Ariz. (2a)
 Skrainka Constr. Co., University City, Mo. (24c)
 Slate, Fred H., Co., Oreg. Ltd., Portland, Oreg. (36a)
 Slate, W. A., Seattle, Wash. (46b)
 Slater Constr. Co., Inc., Ormond Beach, Fla. (9f)
 Slatmyer, Henry G., & Son Constr. Co., The, Cleveland, Ohio (34c)
 Slattery Contr. Co., Inc., Maspeth, L. I., N. Y. (31d)
 Slaw-Landis Paving Co., Cynwyd, Pa. (37e)
 Sletten Constr. Co., Great Falls, Mont. (25b)
 Slinen Constr. Co., Napa, Calif. (4b)
 Sloan Constr. Co., Inc., Greenville, S. C. (32a)
 Slotnick, M., Corp., Boston, Mass. (20b)
 Slotnik, J., Co., Boston, Mass. (20b)
 Slovak Bros., Corpus Christi, Texas (42i)
 Smale & Robinson, Inc., Wilmington, Calif. (4d)
 Small, C. E., Dallas, Texas (42j)
 Small, Jas. H., & Co., Jacksonville, Fla. (9a)
 Small, M. M., Topeka, Kans. (15b)
 Smalley, D. R., & Sons, Inc., Celina, Ohio (13a) (34d)
 Smalling's, R. H., Sons, Macon, Ga. (10a)
 Smallman, Ralph A., & Co., Inc., Birmingham, Ala. (1a)
 Smiley, A. F., Constr. Co., Pawtucket, R. I. (38a)
 Smith, Albert L., Fort Worth, Texas (42c)
 Smith, Alfred A., Inc., Ferndale, Mich. (21a)
 Smith, Ben F., Co., Pasadena, Calif. (4d)
 Smith Bros., Noble, Okla. (35b)
 Smith Bros. Contrs., Leavenworth, Kans. (15a)
 Smith Bros. General Contrs., Inc., Vancouver, Wash. (36a)
 Smith Bldg. Co., Inc., Waco, Texas (42L)
 Smith & Buzby, Philadelphia, Pa. (37d)
 Smith, C. T., & Son, Lenoir, N. C. (32a)
 Smith-Campbell Co., Long Beach, Calif. (4d)
 Smith, Carl E., Sandyville, W. Va. (47a)
 Smith, Chas. D., & Son, Inc., Fond du Lac, Wis. (48b)
 Smith, Chas. M., Thermopolis, Wyo. (49a)
 Smith Constr. Co., Inc., Derby, Conn. (6a)
 Smith Constr. Co., Inc., Ft. Madison, Iowa (14b)
 Smith Contr. Corp., Fort Worth, Texas (42m)
 Smith-Cooke Constr. Co., St. Louis, Mo. (24c)
 Smith, Enoch, Sons Co., Salt Lake City, Utah (43a)
 Smith, Frank W., Constr. Co., San Mateo, Calif. (4b)
 Smith, Geo. T., Jr., Raleigh, N. C. (32a)
 Smith, Gerald, Constr. Co., Memphis, Tenn. (23a)
 Smith, H. C., Co., Los Angeles, Calif. (4d)
 Smith, Harold, St. Helena, Calif. (4b)
 Smith, Howard L., Inc., Cleveland, Ohio (34c)
 Smith, Inc., Fargo, N. Dak. (33a)
 Smith, Ivy H., Co., Jacksonville, Fla. (9a)
 Smith, Jas. S., Co., Inc., Newton, Mass. (20b)
 Smith & Johnson, Inc., Indianapolis, Ind. (13a)
 Smith & Jones, Gen. Contrs., Atlanta, Ga. (32a)
 Smith, L. C., San Mateo, Calif. (4b)
 Smith, L. E., Constr. Co., Tulsa, Okla. (35a)
 Smith, Linwood, Lake Village, Ark. (3a)
 Smith, Luke E., Denver, Colo. (5b)
 Smith, Noland, Constr. Co., El Reno, Okla. (35b)
 Smith, O. J., Richmond, Calif. (4b)
 Smith, Paul, Constr. Co., Jacksonville & Tampa, Fla. (9a) (9c)
 Smith-Phillips Co., Portland, Oreg. (36b)
 Smith, R. B., Inc., Houston, Texas (42f)
 Smith, R. McDonald, Jacksonville, Fla. (9a)
 Smith, R. T., Atlanta, Ga. (10a)
 Smith, Ray L., & Son, Inc., El Dorado, Kans. (42m)
 Smith, Robt. H., & Co., Houston, Texas (42d)
 Smith & Robinson, Borger, Texas (42g)
 Smith, W. D., Co., Charleston, W. Va. (47a)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 267). N—National Member (page 375). L—Local Member.

- Smith & Whitaker, Tupelo, Miss. (23d)
 Smith, Wm. A., Constr. Co., Houston, Texas (42d)
 Smith, Wm. A., Contr. Co. of California, Oakland, Calif. (4b)
 Smithfield, E. O., Atlanta, Ga. (10a)
 Smithson Constr. Co., Inc., Charleston, W. Va. (47a)
 Smolark, J. A., Ft. Washington, Pa. (37d)
 Smyth, Norman A., Co., Charlotte, N. C. (32a)
 Snead, E. B., Constr. Co., Austin Texas (42k)
 Sneed Constr. Co., Odessa, Texas (42p)
 Snider, W. C., Danville, Ky. (16a)
 Snook Bros., Corvallis, Oreg. (36a)
 Snyder, Chas. B., Black Eagle, Mont. (25a)
 Snyder Constr. Co., Inc., Vincennes, Ind. (13b)
 Snyder, J. W., Co., Chicago, Ill. (12a)
 Snyder, Lawrence J., Corp., Muncie, Ind. (13b)
 Sockwell Co., Atlanta, Ga. (10a)
 Soderberg, A. W., Constr. Co., Wichita, Kans. (15a)
 Sollitt Constr. Co., Inc., South Bend, Ind. (13b) (47a)
 Sollitt, Geo., Constr. Co., Chicago, Ill. (12a)
 Solomon, E. J., San Andreas, Calif. (4b)
 Somers, F. L., Klamath Falls, Oreg. (36a)
 Somerville Constr. Co., Ada, Mich. (42m)
 Sondgroth Bros., Mountain View, Calif. (4b)
 Sorber, L. S., & Co., Vienna, Va. (45a)
 Sordoni Constr. Co., Inc., Wilkes-Barre, Pa. (37a)
 Sorensen Bros., Murray, Utah (43a)
 Sorensen Bros., Inc., Albert Lea, Minn. (22a)
 Sorensen-Gross Constr. Co., Flint, Mich. (21b)
 Sorensen, Peter, Redwood City, Calif. (4b)
 Sorenson, P. C., & Co., Inc., Dallas, Texas (42j)
 Sossamon, F. W., Jr., Gaffney, S. C. (32a)
 Soule Constr. Co., Pensacola, Fla. (9d)
 Soule, Henry M., Co., Pawtucket, R. I. (38a)
 Soule, O. L., Portland, Oreg. (36a)
 Sound Constr. & Engr. Co., Seattle, Wash. (46b)
 South Texas Constr. Co., Corpus Christi, Texas (42f)
 Southampton Hauling Co., St. Louis, Mo. (24c)
 Southard Engr. Co., Springfield, Mo. (24b)
 Southeast Constr. Co., Inc., Pine Bluff, Ark. (3a)
 Southeastern Constr. Co., Jackson, Miss.; Charlotte, N. C. & Charleston, W. Va. (23b) (32a) (47a)
 Southeastern Contr. Co., Birmingham, Ala. (1a)
 Souther, M. E., Constr. Co., St. Paul, Minn. (22a)
 Southern Amiesite Asphalt Co., Inc., Birmingham, Ala. (1a)
 Southern Bldrs., Inc., Shreveport, La. (17b)
 Southern Bldrs., Inc., Fayetteville, N. C. (32a)
 Southern Constr. Co., Inc., Augusta, Ga. (10a)
 Southern Constr. Co. of Charlotte, Inc., Charlotte, N. C. (32a)
 Southern Contr. Co., Austin, Texas (42f)
 Southern Roadbuilders, Inc., Augusta, Ga. (32a)
 Southern States Constr. Co., Columbia, S. C. (32a)
 Southwest Constr. Corp., Tulsa, Okla. (35a)
 Southwest Paving Co., Sun Valley, Calif. (4d)
 Southwest Paving Co., Houston, Texas (42j)
 Southwestern Constr. Co., Houston, Texas (42d)
 Southwestern Engr. Co., Los Angeles, Calif. (4d)
 Spangler, C. D., Constr. Co., Charlotte, N. C. (32a)
 Sparks, C. O., & Mundo Engr. Co., Inc., Los Angeles, Calif. (4d)
 Sparks Constr. Co., Oskaloosa, Iowa (14b)
 Sparks Constr. Co., Inc., Coral Gables, Fla. (9b)
 Sparks, K. A., Hamilton, Texas (42L)
 Sparks, W. P., Jr., Waco, Texas (42L)
 Spangling Constr. Co., Greensboro, N. C. (32a)
 Spears Constr. Co., Modesto, Calif. (4b)
 Speer, Paul W., Inc., Los Angeles, Calif. (4d)
 Spencer Bros. Constr. Co., Natchez, Miss. (23b)
 Spencer, C. B., New Orleans, La. (17a)
 Spencer & Co., Santa Fe, N. Mex. (30a)
 Spencer Constr. Co., Spencer, Iowa (14b)
 Spencer Constr. Co., Carrollton, Texas (42f)
 Spencer, E. B., Constr. Co., Waterloo, Iowa (14a)
 Spencer, Paul, San Dimas, Calif. (4d)
 Spencer, Warren, Inc., Silver Spring, Md. (8a)
 Spencer, White & Prentiss, Inc., New York, N. Y. (L)
 Spera Constr. Co., Harrisburg, Pa. (37a)
 Sperry & McCue, Millbrae, Calif. (4b)
 Spicer Co., Los Angeles, Calif. (4d)
 Spiegelberg Lumber & Bldg. Co., Laramie, Wyo. (49b)
 Spieker, Henry J., Co., The, Toledo, Ohio (34e)
 Spier, L. C., Bastrop, La. (17g)
 Spinosa, C. & C., Co., Allentown, Pa. (37e)
 Spohrer-Pollard, Bossier City, La. (17e)
 Spong Constr. Co., Columbia, S. C. (32a)
 Spotts & Co., Newberry, S. C. (32a)
 Springmeyer Investment & Constr. Co., Murray, Utah (43a)
 Sproles, W. R., Constr. Co., Kingsport, Tenn. (41e)
 Spruce, Geo. T., Fayetteville, N. C. (32a)
 Square Constr. Co., Baltimore, Md. (37e)
 Stack Constr. Co., Milwaukee, Wis. (48a)
 Stackhouse, A. V., Co., Indianapolis, Ind. (13b)
 Stacy Bros., Inc., Johnson City, Tenn. (32a)
 Stacy, Geo. R., Tulelake, Calif. (4b)
 Stahl, J. W., Constr. Co., Somonauk, Ill. (12c)
 Stahl, Shattuck & Farrell, Hayward, Calif. (4b)
 Stahr Co., The, Minneapolis, Minn. (22a)
 Staker, L. M., Ames, Iowa (14a)
 Standard Asphalt Paving Co., Spokane, Wash. (46c)
 Standard Bitulithic, New Castle, Del. (7a)
 Standard Bitulithic Co., Newark, N. J. (29a)
 Standard Bldg. Co., San Francisco, Calif. (4a)
 Standard Constr. Co., Bozeman, Mont. (25a)
 Standard Constr. Co., Tacoma, Wash. (46d)
 Standard Constr. Co., Inc., Minneapolis, Minn. (22a)
 Standard Contr. Co., Inc., Bay City, Texas (42d) (42i)
 Standard Dredg. Corp., Los Angeles, Calif. (4d)
 Standard Engr. Co., Inc., Washington, D. C. (L)
 Standard Materials Co., Modesto, Calif. (4b)
 Standard Paving Co., Tulsa, Okla. (35b)
 Standard Paving Co., Fort Worth, Texas (42f)
 Standard Structures, Inc., San Rafael, Calif. (4b)
 Standard Water & Sewage Prods., Inc., Sacramento, Calif. (4b)
 Stanford, Pat H., Midland, Texas (42p)
 Stanley, Walter A., Constr. Co., Inc., Ossining, N. Y. (L)
 Stannard Constr. Co., Wichita, Kans. (15b)
 Stansfield Constr. Co., Tampa, Fla. (9c)
 Stanton-Reed Co., Los Angeles, Calif. (4d)
 Stapp, Floyd D., Constr. Co., Rapid City, S. Dak. (40a)
 Star Constr. Co., Miami, Fla. (9b)
 Stark, Don, Co., Inc., Ottumwa, Iowa (14b)
 Starling Constr. Co., Austin, Texas (42k)
 Starr, H. A., Portland, Oreg. (36a)
 Starrett Brothers and Eken, Incorporated, New York, N. Y.; Pittsburgh, Pa. & San Francisco, Calif. (N) (4a) (37b)
 State Constr. Co., Los Angeles, Calif. (4d)
 State Constr. Co., Seattle, Wash. (46a)
 State Paving & Constr. Co., Philadelphia, Pa. (37e)
 States Constr. Co., Des Moines, Iowa (14a)
 States Constr. Co., Inc., Newport, News, Va. (45a)
 Staub, J. E., & Co., Fulton, Miss. (23d)
 Staunton, Thos., Great Falls, Mont. (25a)
 Stavn, H. L., Co., Inc., Hibbing, Minn. (22a)
 Steadman Constr. Co., Kingsport, Tenn. (41e)
 Stearns-Rogers Mfg. Co., Denver, Colo. (2a)
 Stebbins, Blanchard, Manchester, N. H. (28a)
 Stebbins Constr. Co., Tulsa, Okla. (35b)
 Steed Bros., Alhambra, Calif. (4d)
 Steel City Constr. Co., Inc., Birmingham, Ala. (1a)
 Steele, J. P., Constr. Co., Laramie, Wyo. (49b)
 Steele, Jack S., Constr. Co., Philadelphia, Pa. (37d)
 Steele, Pownall & Gebhardt, Philadelphia, Pa. (37d)
 Steelman Constr. Co., Oklahoma City, Okla. (35b)
 Steenberg Constr. Co., Inc., St. Paul, Minn. (22a)
 Steers, J. Rich, Inc., New York, N. Y. (29a)
 Stegall Constr. Co., Inc., Marshville, N. C. (32a)
 Stehwiien, Boyd E., Garden City, Kans. (15a)
 Steigerwald, Ed. & Sons, Inc., Milwaukee, Wis. (48a)
 Steilberg, H. J., & Son, Shively, Ky. (16b)
 Stein Constr. Co., Chattanooga, Tenn. (41a)
 Steinberg Constr. Co., Tulsa, Okla. (35b)
 Steiner Constr. Co., Baltimore, Md. (19a)
 Steine-Wolfe, Inc., Fremont, Ohio (L)

A.G.C. DIRECTORY

- Stendell, Elvin C., San Francisco, Calif. (4a)
 Stephens Constr. Co., Parkersburg, W. Va. (47a)
 Stephens, Edgar, Constr. Co., Cairo, Ill. (12c) (12d) (16c) (23a)
 Stephens, J. S., & Sons, Tampa, Fla. (9c)
 Stephens Trucking Co., Stockton, Calif. (4b)
 Sterhan Constr. Co., Glendive, Mont. (25b)
 Sternberg, G. H., & Co., Granite City, Ill. (12d)
 Stettler, Ernest, & Sons, Logan, Utah (43a)
 Stevens, A. W., Contr. Co., Burlington, Wash. (46a)
 Stevens & Klocke, Sterling, Ill. (12c)
 Stevens, Ray, Co., The, Kalamazoo, Mich. (21b)
 Stevenson Constr. Co., Salem, Oreg. (36a)
 Stevenson-Pacific, Redwood City, Calif. (4a)
 Stewart, H. R., & Co., Asheville, N. C. (32a)
 Stewart, James, & Co., Inc., New York, N. Y.; Falls Church, Va.; Chicago, Ill. & Dallas, Texas (N) (31c) (42a)
 Stewart & Nuss, Inc., Fresno, Calif. (4b)
 Stewart, R. K., & Son, High Point, N. C. (32a)
 Stewart and Williams, Inc., Augusta, Me. (18a)
 Stibbard Constr. Co., Detroit, Mich. (21a)
 Stickley Bros., Inc., Keyser, W. Va. (47a)
 Stiefel, W. Herbert, Aiken, S. C. (32a)
 Stillfield, Ben K., Constr. Co., Inc., Rock Island, Ill. (12c)
 Stillwell Constr. Co., Macon, Ga. (10a)
 Stim, H. F., Inc., Buffalo, N. Y. (31a)
 Stimson Corp., Dallas, Texas (42j)
 Stitt, H. W., Constr. Co., Omaha, Nebr. (26a)
 Stobs Bros. Constr. Co., Miami, Fla. (9b)
 Stock & Grove, Inc., Anchorage, Alaska (50a)
 Stocke, O. A., & Co., Inc., Rochester, Minn. (22a)
 Stocker, L. O., Co., St. Louis, Mo. (24c)
 Stockholm, Chas., & Sons, San Francisco, Calif. (4a)
 Stocks Mill & Supply Co., Las Vegas, Nev. (27b)
 Stockton, C. T., Inc., Miami, Fla. (9b)
 Stockton Constr. Co., Inc., Stockton, Calif. (4b)
 Stockton, J. C., & Son, Augusta, Ga. (10a) (32a)
 Stoen Constr. Co., Seattle, Wash. (46a)
 Stofflet & Tillotson, Philadelphia, Pa. (37d)
 Stolte, Inc., Oakland, Calif. (4b) (4d)
 Stolz, R. A., Constr. Co., New Hampton, Iowa (14b)
 Stone, Arthur E., Pleasantville, N. J. (29a)
 Stone City Constr. Co., Inc., Bedford, Ind. (13a)
 Stone Constr. Co., Humboldt, Iowa (14b)
 Stone, L. L., Inc., Lawrence, Ind. (13b)
 Stone & Thaut, Spokane, Wash. (46c)
 Stone & Webster Engineering Corp., New York, N. Y.; Boston, Mass.; Chicago, Ill.; Pittsburgh, Pa.; Los Angeles, & San Francisco, Calif. & Houston, Texas (N) (4b) (4d)
 Stonehocker, Felix W., Constr. Co., Midland, Texas (42p)
 Storen, W. J., Co., Detroit, Mich. (21a) (21c)
 Storms & Frew Constr. Co., Kansas City, Mo. (15b) (24b)
 Stoud, Wm. J., Philadelphia, Pa. (37d)
 Stovall, R. B., Co., Dallas, Texas (42j)
 Stow & Rajal, Inc., Miami, Fla. (9b)
 Stowell, F. M., Tulsa, Okla. (42j)
 Straalsund-Thesman, Newport, Wash. (46c)
 Straco Constr. Co., Camden, N. J. (29a)
 Strain & Brown, Inc., San Angelo, Texas (42f)
 Strain, C. Hunter, San Angelo, Texas (42f)
 Straits Constr. Co., St. Ignace, Mich. (21c)
 Strand & Sons, Seattle, Wash. (46b)
 Strandberg, L. B., & Son Co., Chicago, Ill. (12a)
 Strandberg, Stewart O., Co., Chicago, Ill. (12a)
 Strizek, Jere, Sacramento, Calif. (4b)
 Strom Constr. Co., Grand Rapids, Mich. (21b)
 Strom, E. A., Co., Muskegon, Mich. (21b)
 Strong Co., Springville, Utah (43a)
 Strong & Harmon, Raleigh, N. C. (32a)
 Strong, "Les," Constr. Co., Whitney Point, N. Y. (31d)
 Strong & Macdonald, Inc., Tacoma, Wash. (36a) (46d)
 Strong, Walter H., Savannah, Ga. (10a)
 Strother-Barge Co., Atlanta, Ga. (10a)
 Strother, J. P., Constr. Co., Eldon, Iowa (14a)
 Strother & Richm, Inc., Eldon, Iowa (14a)
 Stroup, D. Glenn, Gastonia, N. C. (32a)
 Struck Constr. Co., Louisville, Ky. (16b)
 Strunk Bros., Tiskilwa, Ill. (12c)
 Strunk Constr. Co., Somerset, Ky. (16a)
 Stuart, T., & Sons Co., Watertown, Mass. (20a)
 Stump, Robt., Lincoln, Nebr. (26b)
 Stump & Stradinger, Moberge, S. Dak. (40a)
 Stuntz-Yeoman Co., Inc., Delphi, Ind. (13a)
 Sturm & Co., Inc., Philadelphia, Pa. (37d)
 Suber & Co., Inc., Whitmire, S. C. (32a)
 Subgrade Engr. Corp., Bell, Calif. (4d)
 Suddreth Constr. Co., Oklahoma City, Okla. (35b)
 Sugarman-Moore Co., Los Angeles, Calif. (4d)
 Sugden & Sivier, Inc., Oak Park, Mich. (21c)
 Suhrbier, Herman J., Co., Toledo, Ohio (34e)
 Suits, Harry J., Watkins Glen, N. Y. (31d)
 Sullivan, A. L., Birmingham, Ala. (1a)
 Sullivan & Cozart, Louisville, Ky. (16b)
 Sullivan, D. A., Parkwater, Wash. (45c)
 Sullivan-Foster, Inc., New Bedford, Mass. (20b)
 Sullivan, Frank P., Inc., East Haven, Conn. (6a)
 Sullivan, Long & Hagerty, Inc., Bessemer, Ala. (1a)
 Sully-Miller Contr. Co., Long Beach, Calif. (4d)
 Summerbell Roof Structures, Los Angeles, Calif. (4d)
 Summit Constr. Co., Rapid City, S. Dak. (33a) (40a) (49a)
 Summit Constr. & Fixture Co., Akron, Ohio (34a)
 Sumner, Chas. V., Dallas, Texas (42a)
 Sumner Constr. Co., Nashville, Tenn. (41d)
 Sumsion, J. M., & Sons, Springville, Utah (43a)
 Sumter Bldrs., Inc., Sumter, S. C. (32a)
 Sundt, M. M., Constr. Co., Tucson, Ariz. (2a)
 Sunset Constr. Co., San Antonio, Texas (42f)
 Superior Constr. Co., Gary, Ind. (13b)
 Superior Constr. Co., Greensboro, N. C. (32a)
 Superior Constr. Co., Seattle, Wash. (46a)
 Surace, J. P., Constr. Co., Seattle, Wash. (46a)
 Sussex, R. H., Bellingham, Wash. (46a)
 Suttle, Chas. M., Oklahoma City, Okla. (35a)
 Sutton Co., Inc., Radford, Va. (47a)
 Swain Constr. Co., Inc., Kingstree, S. C. (32a)
 Swalling Constr. Co., Inc., Anchorage, Alaska (50a)
 Swan Constr., Inc., Cincinnati, Ohio (34b)
 Swanburg Constr. Corp., Manchester, N. H. (28a)
 Swanson, Arnold, & Co., Hastings, Nebr. (5b) (26b)
 Swanzy, Ralph, Weslaco, Texas (42o)
 Swatek, M. A., & Co., Oklahoma City, Okla. (42j)
 Sweeney, David M., Co., Idaho Falls, Idaho (11a)
 Sweet, J. S., Co., Cambridge City, Ind. (13a)
 Sweetman Constr. Co., Sioux Falls, S. Dak. (40a)
 Sweitzer, J. S., & Son, Inc., St. Paul, Minn. (22a)
 Swenson, Carl N., Co., Inc., San Jose, Calif. (4a)
 Swenson Carlson Bldrs., Inc., East Chicago, Ind. (13b)
 Swenson Constr. Co., Kansas City, Mo. (15b) (24a)
 Swett, E. D., Winchester, N. H. (28a)
 Swift Constr. Co., Columbus, Ga. (10a)
 Swigart, John J., Co., Orange, Calif. (4d)
 Swilling & Boyd, Pineville, La. (42j)
 Swim, Inc., Beckley, W. Va. (47a)
 Swinerton & Walberg Co., San Francisco, Calif. & Denver, Colo. (4a) (5a)
 Swingen Constr. Co., Grand Forks, N. Dak. (33a)
 Swisher, Mark, Inc., Cleveland, Ohio (34c)
 Swords-McDougal Co., Peoria, Ill. (12c)
 Syar, C. M., Vallejo, Calif. (4b)
 Sykes, H., Patterson, Calif. (4b)

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- T. G. K. Constr. Co., Inc., Phoenix, Ariz. (2a)
 T & R Constr. Co., Muskogee, Okla. (35b)
 T-S Constr. Engrs., Inc., Los Angeles, Calif. (4d)
 T & T Engr. Co., Reno, Nev. (27a)
 Taaffe, Martin J., Los Altos, Calif. (4b)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 267). N—National Member (page 375). L—Local Member.

- Taber-Carmody Co., Grand Rapids, Mich. (21c)
 Tabone & Barbera, Pittston, Pa. (37a)
 Tacoma Constr. & Engr. Co., Tacoma, Wash. (46d)
 Taggart Constr. Co., Cody, Wyo. (25a) (49a)
 Taggart, Henry M., Inc., Philadelphia, Pa. (37d)
 Tait, W. C., San Francisco, Calif. (4a)
 Talarico Contr. Corp., Herkimer, N. Y. (31d)
 Talbott, A. W., Buffalo Springs, Va. (32a)
 Talbott-Myers Constr. Corp., Winchester, Ky. (16a) (37e)
 Tamminga, John S., Denver, Colo. (5a)
 Tankersley Constr. Co., Oklahoma City, Okla. (35a)
 Tanner Bros. Constr. Co., Phoenix, Ariz. (2a)
 Tarlton, G. L., Contr. Co., Placerville, Calif. & St. Louis, Mo. (4b) (5b) (12d) (24b) (24c)
 Tate, C. G., Constr. Co., Concord, N. C. (32a)
 Tavares Constr. Co., La Jolla, Calif. (4c)
 Taylor Bros. Co., Inc., Birmingham, Mich. (21c)
 Taylor, C. B. & M. R., Decorah, Iowa (14a)
 Taylor Constr. Co., Miami, Fla. (9b)
 Taylor Constr. Co., Asheville, N. C. (32a)
 Taylor Constr. Co., Inc., Elizabethton & Johnson City, Tenn. (32a) (41e)
 Taylor, E. F., Co., Inc., Goldsboro, N. C. (32a)
 Taylor, F. H., Co., Detroit, Mich. (21a)
 Taylor, H. J., Constr. Co., Salina, Kans. (15b)
 Taylor-Howle Co., Wichita Falls, Texas (42p)
 Taylor, Jas. T., & Son, Inc., Fort Worth, Texas (42c)
 Taylor & Mullen, North Sacramento, Calif. (4b)
 Tecon Constr. Co., Inc., Dallas, Texas (42f)
 Teer, Nello L., Co., Durham, N. C. (32a)
 Teichert, A., & Son, Inc., Sacramento, Calif. (N) (4b) (4d)
 Tellepsen Constr. Co., Houston, Texas (42d) (42b) (42i)
 Temple Assocs., Diboll, Texas (42d)
 Temple Housing Corp., Temple, Texas (42k)
 Templeton, C. E., Houston, Texas (42d)
 Templeton-Cannon, San Angelo, Texas (42p)
 Templeton, E. J., Everett, Wash. (46a)
 Tennesfos Constr. Co., Fargo, N. Dak. (33a) (40a)
 Terrell Constr. Co., Des Moines, Iowa (14b)
 Terry, Wm. V., Excavating Co., Inc., St. Louis Park, Minn. (22a)
 Terteling, J. A., & Sons, Inc., Boise, Idaho (N) (11a)
 Tester, John, & Son, Inc., Washington, D. C. (8a)
 Testman, John T., Albuquerque, N. Mex. (30b)
 Teton Constr. Co., Cheyenne, Wyo. (49a)
 Teufel, Geo. E., Co., Seattle, Wash. (46b)
 Texas Bitulithic Co., Dallas, Texas & New Orleans, La. (17e) (42f)
 Texas Constr. Co., New Orleans, La. (17a)
 Texas-Gulf Constr. Co., Inc., Houston, Texas (42d)
 Texas-Louisiana Contrs., Fort Worth, Texas (42m)
 Thal, Stanford E., Inc., Toledo, Ohio (34e)
 Tharp, Harold, & Son, Fountain City, Ind. (13a)
 Tharp, Joe B., San Angelo, Texas (42p)
 Theisen Bros., Osmond, Nebr. (26b)
 Thibodeaux, Robt., Co., Inc., Baton Rouge, La. (17d)
 Thiele Bros., Allen Grove, Wis. (48b)
 Thise, C. P., Harlingen, Texas (42o)
 Thomas, B. Miles, Co., San Francisco, Calif. (4b)
 Thomas Co., Inc., Huntington, W. Va. (47a)
 Thomas Constr. Co., Fresno, Calif. (4b)
 Thomas Constr. Co., Billings, Mont. (25a)
 Thomas, G. W., Drayage & Rigging Co., Inc., San Francisco, Calif. (4b)
 Thomas, J. B., Charlotte, N. C. (32a)
 Thomas, J. F., & Son, Shreveport, La. (17b)
 Thomas Rigging Co., Emeryville, Calif. (4b)
 Thomas-Wilson Co., Detroit, Mich. (21a)
 Thomason, C. Y., Co., Greenwood, S. C. (32a)
 Thomasson, Brady, & Son, Paducah, Ky. (16c)
 Thompson, A. R., Contr., Inc., Rutherfordton, N. C. (32a)
 Thompson-Arthur Paving Co., Greensboro, N. C. (32a)
 Thompson Asphalt Co., Madison, Ill. (12c)
 Thompson Constr. Co., Inc., Indianapolis, Ind. (13a)
 Thompson Constr. Corp., The, Camden, N. J. (37e)
 Thompson, E. S., Los Angeles, Calif. (4d)
 Thompson, F. N., Inc., Charlotte, N. C. (32a)
 Thompson, J. A., & Son, Inglewood, Calif. (4d)
 Thompson, J. M., Co., Raleigh, N. C. (32a)
 Thompson, Jas., & Sons, Ames, Iowa (14b)
 Thompson, Jim S., Oklahoma City, Okla. (35b)
 Thompson & Morton Co., Kilgore, Texas (42n)
 Thompson, O. G., & Sons, Burlington, N. C. (32a)
 Thompson, R. M., Co., Clearwater, Fla. (9c)
 Thompson-Schmidt Co., The, Detroit, Mich. (21a)
 Thompson-Starrett Co., Inc., New York, N. Y. & Washington, D. C. (8a) (20b) (31c)
 Thompson & Street Co., Albany, Ga. (10a)
 Thomsen-Abbott Constr. Co., Marshfield, Wis. (48b)
 Thorburn & Logozo, Seattle, Wash. (46a)
 Thorgersen & Erickson Co., Chicago, Ill. (12a)
 Thorington Constr. Co., Inc., Richmond, Va. (45a)
 Thorn Constr. Co., Inc., Springville, Utah (43a)
 Thornton Constr. Co., Hancock, Mich. (21c)
 Thorp Constr. Co., Inc., Evansville, Ind. (13c)
 Thorson Constr. Co., Balaton, Minn. (22a)
 Three A Bldrs., Inc., Evansville, Ind. (13c)
 Thurman, John M., Borger, Texas (35a)
 Thygesen, Henry, & Co., Albuquerque, N. Mex. (30a)
 Tibbits, Healy, Constr. Co., San Francisco, Calif. (4d)
 Tiberti, J. A., Constr. Co., Las Vegas, Nev. (27b)
 Tidewater Construction Corporation, Norfolk, Va. (N) (45a)
 Tidmore Constr. Co., Lubbock, Texas (42p)
 Tiffany Constr. Co., Phoenix, Ariz. (2a)
 Till, Archie L., Yuba City, Calif. (4b)
 Tillman, G. E., Co., Inc., Centralia, Ill. (12c)
 Timber Structures, Inc., Portland, Oreg. (36b)
 Timmons Constr. Co., Amarillo, Texas (42g)
 Tinker, H. G., Macon, Ga. (10a)
 Tinney Drilling Co., Grafton, W. Va. (47a)
 Tisdell Constr. Co., Lubbock, Texas (42p)
 Tobin, Edwin J., Co., Berkeley, Calif. (4b)
 Tobin, J. A., Constr. Co., Kansas City, Kans. (15b) (24b)
 Tocci Bros. Constr. Co., Newtonville, Mass. (20b)
 Todd, R. R., Santa Rosa, Calif. (4a)
 Toebe, Walter, & Co., Lansing, Mich. (21c)
 Tolboe Constr. Co., Inc., Provo, Utah (43a)
 Tolboe & Harlin Constr. Co., Salt Lake City, Utah (43a)
 Tombleson & Huck, Inc., Salinas, Calif. (4a)
 Tomei Constr. Co., Van Nuys, Calif. (4d)
 Tomlinson & Hawley, Inc., Bridgeport, Conn. (6a)
 Tomlinson, T. R., Doyline, La. (17e)
 Tompkins, Chas. H., Co., Washington, D. C. (N) (8a)
 Tonn & Blank, Inc., Michigan City, Ind. (13b)
 Torpey, Michael J., Inc., Woodside, N. Y. (31d)
 Torrington Bldg. Co., The, Torrington, Conn. (6a)
 Torson Constr. Co., Kansas City, Mo. (24b)
 Torvik & Sons Constr. Co., Decorah, Iowa (14a)
 Toth Constr. Co., Muskegon Heights, Mich. (21c)
 Tousley, H. D., Co., Inc., Indianapolis, Ind. (13b)
 Towles, E. B., Constr. Co., Wilmington, N. C. (32a)
 Towne Constr. Co., Philadelphia, Pa. (37d)
 Townsend & Bottum, Inc., Ann Arbor, Mich. (21b)
 Townsend & Elfret Co., Philadelphia, Pa. (37d)
 Trager, Frank, Chillicothe, Mo. (24b)
 Transocean Engr. Corp., Hayward, Calif. (4b)
 Traverso, T. W., Seattle, Wash. (46a)
 Traylor Bros., Inc., Evansville, Ind. & Paducah, Ky. (13a) (13c) (16c)
 Tredennick-Billings Co., The, Boston, Mass. (20b)
 Trepte Constr. Co., San Diego, Calif. (4c)
 Tricon Constr. Corp., San Rafael, Calif. (4b)
 Tri-County Constrs., Philadelphia, Pa. (37e)
 Tri-State Asphalt Corp., Martins Ferry, Ohio & Wheeling, W. Va. (34d) (47a)
 Tri-state Constr. Co., Amarillo, Texas (42g)
 Tri-State Constr. Co., Memphis, Tenn. (41c)
 Tri-State Constr. Co., The, Indianapolis, Ind. (13a)
 Tri-State Engr. Co., Benton, Ill. (12c)
 Tri-State Excavating Co., Fargo, N. Dak. (33a)

A.G.C. DIRECTORY

- Tri-States Constr. Co., Little Rock, Ark. (3a)
- Triangle Constr. Co., Sacramento, Calif. (4b)
- Triangle Constr. Co., Boise, Idaho (11a)
- Triangle Constr. Co., Kankakee, Ill. (12c)
- Triangle Constr. Co., Greenville, S. C. (32a)
- Triangle Rock & Gravel Co., San Bernardino, Calif. (4d)
- Trier, Fred C., Constr. Co., Saginaw, Mich. (21b)
- Trieste Constr. Co., Inc., Delray Beach, Fla. (9c)
- Trimble Co., The, Pittsburgh, Pa. (37b) (37c)
- Trinidad Asphalt Mfg. Co., St. Louis, Mo. (24b)
- Triple Cities Constr. Co., Inc., Binghamton, N. Y. (31d)
- Triplett, F. A., Inc., Chester, S. C. (32a)
- Trisdale, J. H., Inc., Redding, Calif. (4b)
- Tritt Bros., Belleville, Ill. (12c)
- Trojan Constr. Co., Inc., Oklahoma City, Okla. (42m)
- Trompeter Constr. Co., Peru, Ill. (12c)
- Trotti & Thomson, Inc., Beaumont, Texas (42f)
- Trotz Constr. Co., Lovington, N. Mex. (30a)
- Troup Bros., Inc., Miami, Fla. (9b)
- Trousdale Constr. Co., Los Angeles, Calif. (4d)
- Troutman, E. N., Goldsboro, N. C. (32a)
- Troxell, J. A., Bellevue, Wash. (46a)
- Tru-Mix Concrete Co., Medford, Oreg. (36a)
- Trueheart, J. C., Constr. Co., San Antonio, Texas (42j)
- Trumbull-Nelson Co., Inc., Hanover, N. H. (28a)
- Tuck, A. M., Greenwood, S. C. (32a)
- Tuck & Malpass, Inc., Norfolk, Va. (45a)
- Tuckahoe Constr. Co., Inc., Tuckahoe, N. Y. (31d)
- Tucker, F. A., Inc., Rutland, Vt. (28a)
- Tuckman-Barbee Constr. Co., Inc., Washington, D. C. (8a)
- Tudor Constr. Co., Alexandria, La. (17f)
- Tuller Construction Company, The, Red Bank, N. J. (N)
- Tully & Di Napoli, Inc., Fushing, N. Y. (29a) (31d)
- Tully, John C., Co., Chicago, Ill. (12a)
- Tulsa Rig, Reel & Mfg. Co., Tulsa, Okla. (35a)
- Tunnichiff Constr. Co., Davenport, Iowa (14b)
- Turchin, Robt. L., Inc., Miami Beach, Fla. (9b)
- Turgeon, E., Constr. Co., Inc., Providence, R. I. (38a)
- Turnbull, B. F., Inc., Seattle, Wash. (46b)
- Turner Constr. Co., Memphis, Tenn. (41c)
- Turner Construction Co., New York, N. Y.; Washington, D. C.; Philadelphia & Pittsburgh, Pa.; Boston, Mass. & Chicago, Ill. (N) (8a) (12a) (20b) (31c) (37b) (37d)
- Turner, J. M., & Co., Inc., Roanoke, Va. (45a)
- Turner & La Roe, Terrell, Texas (42a)
- Turner, Luther A., & Son, Buda, Texas (42f)
- Turnquist, O. E., Constr. Co., Seattle, Wash. (46b)
- Tusant Constr. Co., Des Moines, Iowa (14b)
- Tuttle, C. B., Long Beach, Calif. (4d)
- Tuttle, Morton C., Co., Boston, Mass. (20b)
- Tvedt, L. A., Memphis, Tenn. (23a) (41c)
- Twaits, Ford J., Co., Los Angeles, Calif. (4d)
- Tway, R. R., Co., Oklahoma City, Okla. (35b)
- Twin Falls Constr. Co., Twin Falls, Idaho (11a)
- Tye & Wells, Eminence, Ky. (16a)
- Tyler, R. B., Co., Louisville, Ky. (16a)
- Tyrrell, Wm. L., Eureka, Calif. (4b)
- U
- Udesen, Robt., Denver, Colo. (5a)
- Uhl Constr. Co., Allison Park, Pa. (37b)
- Uhlhorn, W. B., Harlingen, Texas (42o)
- Ukropina-Polich-Kral, San Gabriel, Calif. (4b) (4d)
- Ulland Bros., Austin, Minn. (22a)
- Underground Constr. Co., Oakland, Calif. (4b)
- Underseth, Theo., Helena, Mont. (25b)
- Union Bldg. & Constr. Corp., Passaic, N. J. (29a)
- Union Constr. Co., Atlanta, Ga. (10a)
- Union Constr. Co., Kansas City, Kans. (24b)
- Union Paving Co., Philadelphia, Pa. (29a) (37e)
- United Bldg. Constr. Co., Philadelphia, Pa. (37d)
- United Concrete Pipe Corp., Baldwin Park, Calif. (4b) (4d)
- United Construction Co., Winona, Minn. & Long Beach, Calif. (N) (4d) (22a)
- United Constr. Co., Memphis, Tenn. (41c)
- United Contr. Co., Portland, Oreg. (36a)
- United Engineers & Constructors Inc., Philadelphia, Pa. (N)
- United States Constr. Corp., Anaheim, Calif. (4d)
- Universal Bridge Co., Inc., Kansas City, Mo. (15b) (24b)
- Universal Constr. Co., Kansas City, Mo. (24a)
- Universal Constr., Inc., Milwaukee, Wis. (48a)
- Unkefer Bros. Constr. Co., Philadelphia & Pittsburgh, Pa. (37b) (37d)
- Upchurch, W. K., Constr. Co., Montgomery, Ala. (1a)
- Upham, Dale, West Union, Iowa (14a)
- Upton-Lang Co., Erie, Pa. (37a)
- Ursprung, R. S., Co., The, Cleveland, Ohio (34c)
- Utah Construction Co., Salt Lake City, Utah; Denver, Colo. & San Francisco, Calif. (N) (4b) (4d) (5a) (36a) (43a)
- Utility Bldrs., Inc., Great Falls, Mont. (25a)
- Utility Constr. Co., South Gate, Calif. (4d)
- Utility Constr. Co., Tacoma, Wash. (46d)
- Utility Constr. Co., Div. of Aetna Ind. Corp., New Brunswick, N. J. (29a)
- Utility Contrs., Seattle, Wash. (46a)
- Utility Contrs., Inc., Wichita, Kans. (15b)
- Utley, A. T., Cape Girardeau, Mo. (24b)
- Utley, J. A., Co., Detroit, Mich. (21a)
- Uvalde Constr. Co., Dallas, Texas (42f) (42j)
- V
- Vaclavick Constr. Co., El Campo, Texas (42d)
- Valle-Sommers Constr. Co., Seattle, Wash. (46b) (50a)
- Valley Bldg. Co., Roswell, N. Mex. (30b)
- Valley Bldrs., Inc., Spring Valley, Ill. (12c)
- Valley Constr. Co., Seattle, Wash. (46a)
- Valley Crushing Co., Boise, Idaho (11a)
- Valley Engr. Co., St. Charles, Ill. (12c)
- Valley Engr. & Constr. Co., Grand Forks, N. Dak. (33a)
- Valley Paving & Constr. Co., Inc., Pismo Beach, Calif. (4d)
- Valley Trenching Co., Fresno, Calif. (4b)
- Vallone, Domenic, Philadelphia, Pa. (37c)
- Van Bokkelen-Cole Co., Oakland, Calif. (4a)
- Van Buskirk, Harold, & Co., Inc., Houston, Texas (42d)
- Van Buskirk, Ira, & Sons, Hawarden, Iowa (14a)
- Vance Bros., Kansas City, Mo. (24b)
- Van Cleve Constr. Co., Houston, Texas (42d)
- Vandegrift, John I., Co., The, Cumberland, Md. (47a)
- Vander Veen, E. J., Grand Rapids, Mich. (21c)
- Vander Veen, P., & Sons, Grand Rapids, Mich. (21c)
- Vandivort Constr. Co., Wenatchee, Wash. (46b)
- Van Dusseldorp, Eben, Colfax, Iowa (14a)
- Van Eyck, T., Tampa, Fla. (9c)
- Vang, Geo., Inc., Pittsburgh, Pa. (37c)
- Van Kleeck, Wm., New Paltz, N. Y. (31d)
- Van Laer, Edw., Inc., Charlottesville, Va. (45a)
- Van Sant Bros., Inc., Wilmington, Del. (7a)
- Van Valkenburgh, N. P., & Co., South Gate & Sacramento, Calif. (4b) (4d)
- Van Winkle & Co., Atlanta, Ga. (10a)
- Van Winkle Constr. Co., Golden, Colo. (5b)
- Vappi & Co., Inc., Cambridge, Mass. (20b)
- Vara Constr., Inc., Boston, Mass. (20b)
- Vardeman, T. R., & Son, Nacogdoches, Texas (42f)
- Vare Bros., Ardmore, Pa. (37e)
- Varnum, Walter, Coeur d'Alene, Idaho (46c)
- Vawter, Fane F., & Co., Des Moines, Iowa (14b)
- Veale Constr. Co., Seattle, Wash. (46b)
- Vecellio & Grogan, Beckley, W. Va. (47a)
- Vecellio, Oscar, Beckley, W. Va. (47a)
- Vega Engr. & Grading Co., Berkeley, Calif. (4b)
- Venable & King, Mayfield, Ky. (16c)
- Ventresca, Ernest, & Son, Philadelphia, Pa. (37e)
- Verhey Constr. Co., Chattanooga, Tenn. (41a)
- Vermilya-Brown Co., Inc., New York City (31c)
- Vernon Bros. Co., Boise, Idaho (11a)
- Vernon Bldrs. & Contr. Co., Leesville, La. (17f)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 267). N—National Member (page 375). L—Local Member.

Vernon Paving Co., Inc., Los Angeles, Calif. (4d)
 Verrier, Robt. A., Constr. Co., Portland, Me. (18a)
 Versaggi Bros. Constr. Co., Wildwood, N. J. (29a)
 Vest & Bartell Constr. Co., Cincinnati, Ohio (34b)
 Vicini, Joe, Placerville, Calif. (4b)
 Vick, Wm. C., Raleigh, N. C. (32a)
 Viesko & Post, Salem, Oreg. (36b)
 Vilbig Bros., Inc., Dallas, Texas (42a)
 Villa Contr. Co., Inc., Westfield, N. J. (29a)
 Villard Contr., Inc., Hastings-on-Hudson, N. Y. (29a)
 Vincent-Peterson Co., Salt Lake City, Utah (43a)
 Vinnell Co., Inc., Alhambra, Calif. (2a) (4b) (4d)
 Vinroot, G. E., Constr. Co., Charlotte, N. C. (32a)
 Vinson Constr. Co., Phoenix, Ariz. (2a)
 Vinton Constr. Co., Coldwater, Mich. (21c)
 Vipond & Vipond, Hollidaysburg, Pa. (37c)
 Viperman Constr. Co., Beckley, W. Va. (47a)
 Virginia Engineering Co., Inc., Newport News, Va. (N) (45a)
 Visintine & Co., Columbus, Ohio (34d)
 Vivrett & Vivrett, Dallas, Texas (42a)
 Vizzini, Philip, Baltimore, Md. (19a)
 Vlachich, Robt., Los Angeles, Calif. (4d)
 Vogel Bros. Bldg. Co., Madison, Wis. (48b)
 Vogt, Elmer, Inc., Massillon, Ohio (34d)
 Vokes, H. L., Co., The, Cleveland, Ohio (34c)
 Volden, Verdie J., Inc., Farmington, Minn. (22a)
 Vollmar Bros. Constr. Co., St. Louis, Mo. (12d) (24c)
 Vollmer, C. W., & Co., Inc., Houston, Texas (23a)
 Vollmer, Clarence E., Constr. Co., Wichita, Kans. (15a)
 Volpa Bros., Fresno, Calif. (4b)
 Volpe Constr. Co., Malden, Mass. (20b)
 Volpe, S., & Co., Inc., Boston, Mass. (20b)
 Von Gunden, C. F., San Diego, Calif. (4c)
 von Rosenberg, H. J., San Antonio, Texas (42e)
 Vordenbaum, M. A., & Sons, Wichita Falls, Texas (42p)
 Voss-Hrdlicka Co., Milwaukee, Wis. (48a)
 Vowell Constr. Co., El Paso, Texas (42f)
 Vulcan Copper & Supply Co., The—Constr. Div., Cincinnati, Ohio (34b)

W

W-M Corp., Chicago, Ill. (12a)
 Waale-Camplan Co., Portland, Oreg. (36b)
 Waddell, J. R., & Sons, Charlotte, N. C. (32a)
 Wade Constr. Co., Barnesville, N. C. (32a)
 Wade, D. B., Casper, Wyo. (49b)
 Wadham & May Co., The, Hartford, Conn. (6a)
 Waggoman-Styron Co., Albuquerque, N. Mex. (30b)
 Wagner, Chas. E. W., Co., Inc., Richmond, Ind. (13b)
 Wagner Constr. Co., Austin, Minn. (22a)
 Wagner, Inc., Cincinnati, Ohio (34b)
 Wagner, Karl B., Austin, Texas (42j)

Wagoner Constr. Co., Salisbury, N. C. (32a)
 Waitman, E. J., Harlingen, Texas (42o)
 Walbridge, Aldinger Co., Detroit, Mich. (21a)
 Walco Engr. & Constr. Co., Tulsa, Okla. (35a)
 Waldron, Edward M., Incorporated, Newark, N. J. (L)
 Wales, Geo. B., Waco, Texas (42L)
 Walker, A. W., & Son, Mt. Sterling, Ky. (16a)
 Walker, C. Glenn, Co., Ft. Dodge, Iowa (14b)
 Walker Constr. Co., Mattoon, Ill. (12c)
 Walker, Geo. W., & Sons, Inc., Buffalo, N. Y. (31a)
 Walker, J. B. & R. E., Salt Lake City, Utah (43a)
 Walker-Lewis Constr. Co., Mobile, Ala. (1a)
 Walker, P. J., Co., Los Angeles, Calif. (4d)
 Walker, W. T., Co., Vicksburg, Miss. (23b)
 Wallace, W. H., Constr. Co., Dallas, Texas (42a)
 Wallace & Wallace Contrs., Phoenix, Ariz. (2a)
 Wallace, Wm., Philadelphia, Pa. (37d)
 Walling Constr. Co., Lewistown, Mont. (25a)
 Wallstrom, Geo. W., Inc., Youngstown, Ohio (34f)
 Walser, Don, Everett, Wash. (46b)
 Walser, John F., Pontiac, Mich. (21c)
 Walsh & Burney Co., San Antonio, Texas (42e)
 Walsh Construction Company, New York, N. Y.; Davenport, Iowa & San Francisco, Calif. (N) (4b)
 Walsh & Ikeler, Gary, Ind. (13a)
 Walsh, J. A., Corpus Christi, Texas (42i)
 Walsh, John H., & Co., Inc., Jackson, Miss. (23a)
 Walters Sand Co., Manhattan, Kans. (15b)
 Walton, J. S., & Co., Mobile, Ala. (1a)
 Walton, W. W., Co., Tyler, Texas (42n)
 Wambold, Edgar M., Philadelphia, Pa. (37d)
 Wandel, Bruce B., Pittsburgh, Pa. (37c)
 Wannamaker & Wells, Inc., Orangeburg, S. C. (32a)
 Ward, C. P., Inc., Rochester, N. Y. (31d)
 Ward Cove Bldrs., Ketchikan, Alaska (50a)
 Ward, Ken, Constr. Co., Portland, Oreg. (36a)
 Ward, O. J., Inc., Shreveport, La. (17e)
 Ward and Ward, Las Vegas, Nev. (27b)
 Wark & Co., Philadelphia, Pa. (37d)
 Warlick, L. A., Contr. Co., Chattanooga, Tenn. (41a)
 Warm, J. & E., Co., The, Cincinnati, Ohio (34b)
 Warner, A. R., & Son, Waynesboro, Pa. (37a)
 Warner Constr. Co., San Angelo, Texas (42p)
 Warrack, J. B., Co., Seattle, Wash. & Anchorage, Alaska (46b) (50a)
 Warranty Paving Co., Summit, N. J. (29a)
 Warren Bros. Road Co., Cambridge, Mass.; Fairfield, Me. & Birmingham, Ala. (1a) (18a) (23a) (31d)
 Warren Engr. Co., Warren, Ohio (34f)
 Warren Northwest, Inc., Portland, Oreg. (36a)
 Warren-Southwest, Inc., Torrance, Calif. (4d)
 Warter Constr. Co., Tacoma, Wash. (46d)

Washington Asphalt Co., Seattle, Wash. (46a)
 Wasielewski, E. J., Phoenix, Ariz. (2a)
 Waterbury & Chapek, Sacramento, Calif. (4a)
 Waterfall Constr. Co., Ogden, Utah (43a)
 Waters Constr. Co., Elizabethtown, Ky. (16a)
 Waters, John N. Audubon, N. J. (29a)
 Watkins, C. W., & Son, Boise, Idaho (11a)
 Watkins, Grover C., Co., Paducah, Ky. (16c)
 Watkins & Snowden, Meridian, Miss. (23d)
 Watson, Fred O., Co., Minneapolis, Minn. (22a)
 Watson, M. W., Topeka, Kans. (15a) (15b)
 Wattinger, R. H., Richmond, Va. (45a)
 Watts, Cleal T., Rochdale, Miss. (23a)
 Watts Constr. Co., The, Toledo, Ohio (34e)
 Watts, J. G., Constr. Co., Portland, Oreg. (36a)
 Wattson, R. A., Co., North Hollywood, Calif. (4d)
 Wayland, John F., Washington, Kans. (15a)
 Wayman, W. M., Constr. Co., Cherokee, Iowa (14b)
 Wayne Constr. Co., Inc., Kingsport, Tenn. (41e)
 Wayne, Engr. & Constr. Co., Inc., Mt. Olive, N. C. (32a)
 Wayne Paving, Inc., Fort Wayne, Ind. (13a)
 Weaver Bros. Constr. Co., Concord, N. H. (28a)
 Weaver Constr. Co., Iowa Falls, Iowa (14a)
 Weaver Constr. Co., Corpus Christi, Texas (42i)
 Weaver Crane & Trucking Co., Inc., Charleston, W. Va. (47a)
 Weaver, M. O., Inc., Des Moines, Iowa (14a)
 Weaver, W. H., Constr. Co., Inc., Greensboro, N. C. (32a)
 Webb, Del E., Constr. Co., Phoenix, Ariz. & Los Angeles, Calif. (N) (2a) (4a) (4d) (27b)
 Webb, T. A., Austin, Texas (42k)
 Webb & White, Los Angeles, Calif. (4d)
 Weber, Herman, Inc., Beaumont, Texas (42d) (42h)
 Wedding & Cochran, Amarillo, Texas (42g)
 Weeks Constr. Co., Inc., Kansas City, Mo. (24a)
 Wehr, Edw. A., Pittsburgh, Pa. (37b)
 Weidmer, Victor, Penryn, Placer County, Calif. (4b)
 Weikel Constr. Co., Inc., The, Fort Wayne, Ind. (13a) (47a)
 Weil Constr. Co., Reno, Nev. (27a)
 Weinstein Constr. Co., Akron, Ohio (31a)
 Weir Constr. Co., Detroit, Mich. (21c)
 Weiss, R. L., & Son, Fountain City, Tenn. (41b)
 Weist, Ray, Yakima, Wash. (46c)
 Weitz Co., Inc., The, Des Moines, Iowa (14a) (14b)
 Welch Constr. Co., Shreveport, La. (17b)
 Welch, Louis B., Constr. Co., Cowley, Wyo. (49b)
 Welcome, J. J., Constr. Co., Seattle, Wash. (46a)
 Welden Bros., Iowa Falls, Iowa (14a)
 Welden, O. E., Seattle, Wash. (46b)
 Weldon Contr. Co., Westfield, N. J. (29a)

A.G.C. DIRECTORY

- Weller & Boucher Constr. Co., Wichita, Kans. (15a)
Weller Bros., Spokane, Wash. (46c)
Wells Cargo, Inc., Reno, Nev. (27a)
Wells Constr. Co., Tulsa, Okla. (35a)
Welsbach Corp., Philadelphia, Pa. & St. Joseph, Mich. (21b) (37d)
Welsch, E. J., & Co., Inc., New Orleans, La. (17a)
Welsh, J. H., & Son Contr. Co., Phoenix, Ariz. (2a)
Wendel Constr. Co., El Campo, Texas (42f)
Wentz Constr. Co., Concordia, Kans. (15b)
Wergin Co., The, Wausau, Wis. (48b)
Wermuth, Inc., Fort Wayne, Ind. (13b) (21a)
Werner Co., The, Shreveport, La. (17b)
Werner, Geo. K., & Son, Clay Center, Nebr. (26b)
Werner, H. C., Inc., Eugene, Ore. (36a)
Wescott, Louis S., Pittsburgh, Pa. (37c)
Wesley & Co., Inc., Atlanta, Ga. (10a)
Wessell Constr. Co., Memphis, Tenn. (41c)
Wes-Tex Constr. Co., Borger, Texas (42g)
West Bldg. Co., Inc., Winston-Salem, N. C. (32a)
West, J. H., & Sons, Birmingham, Ala. (1a)
West, P. S., Constr. Co., Inc., Statesville, N. C. (32a)
West Shore Constr. Co., Zeeland, Mich. (21c)
West Texas Bldrs., Lubbock, Texas (42p)
Westbrook, R. A., Monterey Park, Calif. (4d)
Westcott-Bowen Constr. Co., Lincoln, Nebr. (26a)
Western Asphalt Co., Seattle, Wash. (46a)
Western Constr. Co., Pocatello, Idaho (11a)
Western Constr. Co., Inc., Lake Charles, La. (17c)
Western Constr., Inc., Greeley, Colo. (5b)
Western Constrs., Inc., Phoenix, Ariz. (2a)
Western Contracting Corporation, Sioux City, Iowa; Cleveland, Ohio & Kansas City, Mo. (N) (4b) (4d) (14a) (15b) (26b) (40a) (42f)
Western Crane Service, Berkeley, Calif. (4b)
Western Engr. Co., Harlan, Iowa (14a)
Western-Knapp Engr. Co., Hibbing, Minn. (22a)
Western Motor Transfer, Inc., Santa Barbara, Calif. (4d)
Western Pipe Line Constr., Inc., Austin, Texas (42m)
Western Reserve Bldg. Co., Inc., The, Warren, Ohio (34f)
Western States Engrs., Inc., Los Angeles, Calif. (4d)
Western U. S. Constr. Co., San Fernando, Calif. (4d)
Westlake Constr. Co., St. Louis, Mo. (24c)
Westphal, John C., Inc., Detroit, Mich. (21a)
Wetherby, J. P., Constr. Co., Ottawa, Ill. (12c)
Wetmore, W. G., Jackson, Miss. (23b)
Wexler Constr. Co., Inc., Newton Highlands, Mass. (20b)
Weymouth Constr. Co., Memphis, Tenn. (23a)
Whalley Constr. Co., Savannah, Ga. (10a)
Wheatley, Geo. W., & Son, Dupon, Ill. (12d)
Wheeler, C. F., Bldr., Miami, Fla. (9b)
Wheeler, Earl C., Hartford, Conn. (6a)
Wheeler & Tempest, Salt Lake City, Utah (43a)
Wheelwright Constr. Co., Ogden, Utah (43a)
Whetzel Bros., Champaign, Ill. (12c)
Whitaker, Guy C., Shreveport, La. (17b)
Whitcomb, Arthur, Constr. Co., Inc., Keene, N. H. (28a)
Whitcomb, Frank W., Constr. Corp., North Walpole, N. H. (28a)
White, A. P., & Assocs., Charlotte, N. C. (32a)
White, Barclay, & Co., Inc., Philadelphia, Pa. (37d)
White Bros. Constr. Co., Inc., Walla Walla, Wash. (36a)
White Constr. Co., Inc., Boston, Mass. (20b)
White Constr. Co., Inc., New York City (31c)
White Constr. Co., The, Chicago, Ill. (13a)
White Constr. & Engr. Co., St. Petersburg, Fla. (9c)
White, Howard J., Inc., Palo Alto, Calif. (4a)
White, J. C., Co., Des Moines, Iowa (14a)
White, J. M., & Son, South Houston, Texas (42j)
White, L. M., Contr. Co., Tucson, Ariz. (2a)
White, M. E., Constr. Co., McPherson, Kans. (42m)
White, Noble W., Seattle, Wash. (46b)
White, Richard, Sons, Inc., West Newton, Mass. (20b)
White, Wm. L., & Son, Terre Haute, Ind. (13a)
Whitehead, I. L., Co., Sault Ste. Marie, Mich. (21c)
Whitehurst Constr. Co., Ponca City, Okla. (35a)
Whiting, Floyd S., Murray, Utah (43a)
Whiting & Haymond, Springfield, Utah (43a)
Whitley, D. A., Co., Spokane, Wash. (46c)
Whitmeyer, Geo. A., & Sons Co., Ogden, Utah (43a)
Whitmore, C. B., Co., Lockport, N. Y. (31d)
Whitmyer Bros., Hammonton, N. J. (29a)
Whittenberg Constr. Co., Louisville, Ky. (16b)
Whittle, R. D., Constr. Co., Dallas, Texas (42j)
Whittmore Constr. Co., Albuquerque, N. Mex. (30b)
Whitton Bros., Charlotte, N. C. (32a)
Whitty Constr. Co., Washington, D. C. (8a)
Wick Constr. Co., Seattle, Wash. (46b)
Wickersham Constr. Co., Tulsa, Okla. (35a)
Wickes Engr. & Constr. Co., Des Moines, Iowa (14b)
Wickham & Jessup Constr. Co., Eau Gallie, Fla. (9f)
Wigton-Abbott Corporation, Plainfield, N. J. (N) (37d)
Wikstrom, A. S., Skaneateles, N. Y. (29a) (31d) (37c)
Wilborn Constr. Co., Birmingham, Ala. (1a)
Wilburn & Son, Asheville, N. C. (32a)
Wilcox, Ira C., Co., Pittsburgh, Pa. (37b)
Wilcox, Jack, Huntington Park, Calif. (4d)
Wilder, C. V., Co., Bellingham, Wash. (46a)
Wilder, F. E., Olympia, Wash. (46a)
Wildes Constr. Co., Waterloo, Iowa (14b)
Wildman, R. H., Co., Iowa City, Iowa (14b)
Wile, Henry E., Co., Newton Centre, Mass. (20b)
Wilhelm, F. A., Indianapolis, Ind. (13b)
Wilkins Constr. Co., Pittsburgh, Pa. (37c)
Willamette Tug & Barge Co., Portland, Oreg. (36a)
Willard, A. Y., Charleston, S. C. (32a)
Willard-Brent Co., Los Angeles, Calif. (4d)
Williams-Austin Co., Pittsburgh, Pa. (42m)
Williams Bros. Co., Tulsa, Okla. (42m)
Williams & Burrows, Inc., South San Francisco, Calif. (4a)
Williams & Burrows, Inc., & Carl N. Swenson Co., Inc., Burlingame, Calif. (4d)
Williams, Cole, Inc., Dallas, Texas (42j)
Williams Constr. Co., Des Moines, Iowa (14a)
Williams Constr. Co., Inc., Houston, Texas (42d)
Williams, H. A., Inc., Allentown, Pa. (37a)
Williams, H. K., Co., Louisville, Ky. (16a)
Williams, J. L., Constr. Co., Inc., Bellaire, Texas (42j)
Williams, R. R., Owensboro, Ky. (13c)
Williams Waterproofing & Painting Co., Los Angeles, Calif. (4d)
Willingham Constr. Co., St. Louis, Mo. (24c)
Willis, C. G., & Sons, Inc., Los Angeles, Calif. (4d)
Willis Constr., Branchville, Sussex Co., N. J. (29a)
Willis, T. S., Janesville, Wis. (48b)
Willits, Perry E., Inc., Miami, Fla. (9b)
Willman Constr. Co., The, Cedar Rapids, Iowa (14a)
Wills, F., Antioch, Calif. (4b)
Willy Constr. Co., Dubuque, Iowa (14b)
Wilmoth, Tom, Longview, Texas (42n)
Wilscam, Geo., Wichita, Kans. (15a)
Wilson Bros., Inc., Parkersburg, W. Va. (47a)
Wilson, C. T., Contr. Co., St. Louis, Mo. (12d) (24c)
Wilson Constr. Co., Lincoln, Nebr. (26a)
Wilson Constr. Co., Inc., Salisbury, N. C. (32a)
Wilson Constr. Co., Inc., Johnstown, Pa. (37a)
Wilson Constr. Corp., Radford, Va. (45a)
Wilson, Frank H., Ardmore, Pa. (37d)
Wilson, G. L., Bldg. Co., Statesville, N. C. (32a)
Wilson, H. P., New Castle, Del. (7a)
Wilson, J. L., Bloomfield, Ind. (13a)
Wilson-Ledford Constr. Co., Inc., Gastonia, N. C. (32a)
Wilson, Mark K., Co., Chattanooga, Tenn. (41a)
Wilson Robt. M., Guttenberg, Iowa (14a)
Wilson, S. M., & Co., Granite City, Ill. (12d)
Wiltgen Constr. Co., LeMars, Iowa (14b)
Winans Constr. Co., Little Rock, Ark. (3a)
Winans Contr. Co., Inc., The, Linden, N. J. (29a)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 267). N—National Member (page 375). L—Local Member.

Windham & Sons, Inc., Livingston, Texas (42d)
 Winger & Selby, Inc., New York, N. Y. (37d)
 Winkelman, D. W., Carolina Co., Greensboro, N. C. (32a)
 Winkelman, D. W., Co., Inc., Syracuse, N. Y. (N) (31d) (37c)
 Winn-Senter Constr. Co., Kansas City, Mo. (24a)
 Winner, B. L., Co., Inc., Pittsburgh, Pa. (37b)
 Winslow Constr. Co., Salem, Ind. (13a)
 Winston Bros. Company, Minneapolis, Minn.; Loveland, Colo. & Monrovia, Calif. (N) (4d) (5b) (22a) (24b)
 Winston Bros. Co., & Al Johnson Constr. Co., Sacramento, Calif. (4b)
 Wintz, Frank I., & Son, Philadelphia, Pa. (37d)
 Wirtz, Walter E., Amarillo, Texas (42g)
 Wise Constr. Co., Pensacola, Fla. (9d)
 Wise Constr. Co., Jackson, Miss. (23b)
 Wise Contr. Co., Richmond, Va. (45a)
 Wise, E. D., Chattanooga, Tenn. (41a)
 Wise, J. H., & Son, Boise, Idaho (11a)
 Wisner & Miller, Lodi, Calif. (4a)
 Witcher, Dean L., Inc., Minneapolis, Minn. (22a)
 Witt Constr. Co., Provo, Utah (43a)
 Witters Constr. Co., Inc., Miami, Fla. (9b)
 Woermann Constr. Co., St. Louis, Mo. (24c)
 Woerth, Herman R., Columbus, Nebr. (26a)
 Wohl-Calhoun Co., Los Angeles, Calif. (4d)
 Wohlfeld Constr. Co., Dallas, Texas (42d)
 Wolf Constr. Co., Logansport, Ind. (13b)
 Wolfe, M. H., & Co., Inc., Granite City, Ill. (12d)
 Wolfe, Monroe J., New Orleans, La. (23a)
 Wolff, Arthur C., Inc., Milwaukee, Wis. (48a)
 Wolff Constr. Co., St. Paul, Minn. (22a)
 Wolter, W. H., Corpus Christi, Texas (42i)
 Womack Constr. Co., Phoenix, Ariz. (2a)
 Wonderly Constr. Co., Long Beach, Calif. (4d)
 Wood & Barton Co., Frankfort, Ky. (16a)
 Wood, Claude C., Co., Lodi, Calif. (4b)
 Wood, Clyde W., & Sons, Inc., North Hollywood, Calif. (4b) (4d)
 Wood, Earl R., Ainsworth, Iowa (14b)
 Wood, Louis A., Houston, Texas (42d)
 Wood, Milo, & Son, Newton, Iowa (14b)
 Wood, W. E., Co., Detroit, Mich. (21a)
 Woodall Bros., Eagle, Idaho (11a)
 Woodcock, O. P., Co., Jacksonville, Fla. (9a)
 Wooding, C. F., Co., The, Wallingford, Conn. (6a)

Woodrich Constr., Inc., Hopkins, Minn. (22a)
 Woodruff, H. E., Corpus Christi, Texas (42i)
 Woodruff, W. E., Co., Houston, Texas (42d)
 Woods, C. C., Constr. Co., Durham, N. C. (32a)
 Woodward Constr. Co., Rock Springs, Wyo. (49a)
 Woodward, L. A., Constr. Co., Missoula, Mont. (25a)
 Woodworth & Co., Inc., Tacoma, Wash. (46d)
 Wooten Constr. Co., Little Rock, Ark. (3a)
 Worcester, John C., San Antonio, Texas (42e)
 Word, Dean, Co., New Braunfels, Texas (42f)
 Worrell, M. E., Junction, Texas (42f)
 Worrell & Watkins, Dallas, Texas (42f)
 Worth Constr. Co., Fort Worth, Texas (42f)
 Worthington, Howard, Line Lexington, Pa. (23e)
 Wrenn-Wilson Constr. Co., Durham, N. C. (32a)
 Wright Constr. Co., Lansing, Mich. (21c)
 Wright Constr. Co., Raleigh, N. C. (32a)
 Wright Contr. Co., Columbus, Ga. (23a)
 Wright, Fred, Constr. Co., Nashville, Tenn. (41d)
 Wright, Howard S., & Co., Inc., Seattle, Wash. (46b) (46d)
 Wright & Kremers, Inc., Niagara Falls, N. Y. (31a)
 Wright & Maugh Constr. Co., Leland, Miss. (23d)
 Wright & Morrissey, Inc., Burlington, Vt. (28a)
 Wright, R. H., & Son, Inc., Fort Lauderdale, Fla. (9b)
 Wright, Ralph, & Son, Mayfield, Ky. (16c)
 Wright, Robt. R., Clayton, Mo. (24c)
 Wright, W. V., Constr. Co., Dallas, Texas (42f)
 Wunderlich Contracting Company, Omaha, Nebr. (N) (5b)
 Wylie Bros., Albuquerque, N. Mex. (30a)
 Wyman, A. P., Inc., Waterville, Me. (18a)
 Wyoming Constr. Co., Laramie, Wyo. (49a)
 Wyoming Improvement Co., Denver, Colo. (49a)
 Wyse, Harry O., Lexington, Ky. (16a)

Y

Y & G Constr. Co., Moses Lake, Wash. (46e)
 Yates Constr. Co., Marshall, Texas (42n)
 Yeager, E. L., Co., Riverside, Calif. (4d)
 Yenter, J. C., Tyrone, Pa. (37a)

Yerington, John G., Benton Harbor, Mich. (21c)
 Yett & Conley, Portland, Oreg. (50a)
 Yett, Porter W., Portland, Oreg. (36a)
 Yocom, O. C., McMinnville, Oreg. (36a)
 York Bldg. Co., Raleigh, N. C. (32a)
 Young & Adams, Inc., Baltimore, Md. (19a)
 Young Constr. Co., St. Joseph, Mo. (15b)
 Young Constr. Co., Rock Hill, S. C. & Charlotte, N. C. (32a)
 Young, F. E., Constr. Co., San Diego, Calif. (4c)
 Young Foundation Corp., Teaneck, N. J. (29a)
 Young, Fred, Memphis, Tenn. (41c)
 Young, J. E., Pipeline Contr., Inc., Los Angeles, Calif. (4d)
 Young, J. R., Constr. Co., Fayetteville, N. C. (32a)
 Young, L. A., Constr. Co., Richfield, Utah (43a)
 Young, Perce, Bldg. Constr., Salt Lake City, Utah (43a)
 Young & Smith Constr. Co., Salt Lake City, Utah (43a)
 Young & Sons Constr. Co., Inc., Chicago, Ill. (12a)
 Young, W. M., Tracy, Calif. (4b)
 Youngman, H. D., Baxter Springs, Kans. (15b) (35b)
 Youngs, Claude L., Sacramento, Calif. (4b)
 Yount, H. J., Covina, Calif. (4d)
 Younts, E. E., Inc., High Point, N. C. (32a)

Z

Zachry, H. B., Co., San Antonio, Texas (N) (42f) (42j)
 Zandonella, John, Bridgeport, Conn. (6a)
 Zara Contr. Co., Inc., West Hicksville, L. I., N. Y. (31d)
 Zeller, Max J., Inc., Columbus, Ohio (34d)
 Zellfelder, Albert, & Co., Inc., Philadelphia, Pa. (37d)
 Zempter, J. W., Contr. Co., Inc., Galveston, Texas (42d)
 Zerkel Constr. Co., Inc., Arlington, Va. (8a)
 Zimmerly Constr. Co., Paris, Ill. (12c)
 Zimmerman, Louis, Jr., Hillside, N. J. (29a)
 Zinzow Constr. Co., Inc., Elkhorn, Wis. (48b)
 Ziobro, Stanley J., Inc., East Rutherford, N. J. (29a)
 Zitterell-Mills Co., Webster City, Iowa (14b)
 Zull, C. Louis, Cincinnati, Ohio (34b)
 Zwack, Anton, Inc., Dubuque, Iowa (14b)

Roster by States

1. ALABAMA

(a) ALABAMA BRANCH

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Telephone: 4-5547-8

Allen, R. J., Contr. Co., P. O. Box 3881, Fairview, Birmingham 8, Ala. (B)

Brasfield, Thos. C., 3025 6th Ave., Birmingham, Ala. (B)

Brice Bldg. Co., Inc., 1021 2d Ave., No., Box 1028, Birmingham 1, Ala. (B)

Buchanan, P. A., Contr. Co., 610 3d Ave., W., P. O. Box 1903, Birmingham, Ala. (B-Hvy)

Burgess, A. E., Contr. Co., 3700 10th Ave., No., Birmingham, Ala. (H)

Burke, J. P., 269 N. 4th St., Box 123, Gadsden, Ala. (B)

Coston, W. L., & Sons, 1st National Bank Bldg., Birmingham, Ala. (B)

Couch Constr. Co., Dothan, Ala. (H-Hvy-RR)

Daniel Constr. Co., P. O. Box 1511, Birmingham, Ala. (B)

Daugette, F. R., 3700 10th Ave., No., Birmingham, Ala. (B)

Dethlefs & Hannon, Anniston, Ala. (B)

Dillard, J. E., P. O. Box 52, Bessemer, Ala. (B)

Dillard, J. E., & Sons, 2901 N. 19th St., Bessemer, Ala. (B)

Donahoo, A. G., Contr. Co., 1013 3d Ave., So., Birmingham, Ala. (Hvy)

Donahoo, H. N., 520 1st Ave., No., Birmingham, Ala. (B)

Dunn Constr. Co., Inc., 2508 3d Ave., No., Birmingham 3, Ala. (B-H-Hvy-RR)

Ellard Contr. Co., Inc., P. O. Box 35, Irondale Sta., Birmingham 10, Ala. (H-Hvy-RR)

Hoar, F. R., & Son, Inc., 2808 19th Pl., So., Birmingham, Ala. (B)

Hodges & Co., Inc., P. O. Box 998, Anniston, Ala. (H)

Holley, J. F., Constr. Co., Inc., 905 6th Ave., No., Birmingham, Ala. (B)

Hooks, C. F., 2500 Shades Crest Rd., Birmingham, Ala. (B)

Howton, W. C., Contr. Co., 3904 10th Ave., No., Birmingham, Ala. (H)

Hunter Constr. Co., 1820 28th Ave., So., Birmingham, Ala. (B)

Morgan-Holloman Constr. Co., P. O. Box 434, Tuscaloosa, Ala. (B)

Moss-Thornton Co., Inc., P. O. Box 82, Leeds, Ala. (H)

Paul, C. A., 14 Bonita Dr., Birmingham, Ala. (B)

Perusini Constr. Co., 720 S. 28th Ave., Homewood, Ala. (B)

Richardson Constr. Co., 3100 7th Ave., So., Birmingham 5, Ala. (B)

Rives Constr. Co., 1015 7th Ave., So., Birmingham, Ala. (B)

Roberts, Jack A., 1318 N. 23d St., P. O. Box 1890, Birmingham, Ala. (B)

Robins Engr., 805 Acton Ave., Birmingham 9, Ala. (B)

Smallman, Ralph A., & Co., Inc., 1109 5th Ave., So., Birmingham, Ala. (B)

Southeastern Contr. Co., P. O. Box 9068, Mt. Brook Sta., Birmingham 9, Ala. (B)

Southern Amiesite Asphalt Co., Inc., 3401 5th Ave., No., P. O. Box 1390, Birmingham 1, Ala. (B-H-Hvy-RR)

Steel City Constr. Co., Inc., 217 Clark Bldg., Birmingham, Ala. (B)

Sullivan, A. L., 3711 3d Ave., So., P. O. Box 3098, Avondale Sta., Birmingham, Ala. (B)

Sullivan, Long & Hagerty, Inc., 2028 2d Ave., No., Bessemer, Ala. (B-H-Hvy)

Warren Bros. Roads Co., 400 S. 41st St., P. O. Box 549, Birmingham, Ala. (H)

West, J. H., & Sons, 4210 1st Ave., No., Birmingham 6, Ala. (B)

Wilborn Constr. Co., 830 2d Ave., No., Birmingham, Ala. (B)

Mobile Section

President—Norman J. Walton, J. S. Walton & Co., P. O. Box 863, Mobile, Ala.

Executive Secretary—J. R. Klumpp, 764 St. Michael St., Mobile, Ala.

Telephone: 3-9642

Apfelbach, Henry J., P. O. Box 202, Mobile, Ala. (B)

Bernard & Byrd, P. O. Box 1688, Mobile, Ala. (B-Hvy)

Bost, P. M., 52 DeMouy Ave., Mobile, Ala. (B)

Conley Constr. Co., 1100 S. Conception St., Mobile, Ala. (B)

Cropp, E. H., Constr. Co., 1508 Eslava St., Mobile 19, Ala. (B)

Davis, T. H., 2508 O'sage St., Mobile 17, Ala. (B)

Ernest Constr. Co., 1810 Old Shell Rd., Mobile 17, Ala. (Hvy)

Gulf Constr. Co., 106 St. Anthony St., P. O. Box 358, Mobile 3, Ala. (B-Hvy)

Hancock Co., 310 St. Michael St., P. O. Box 1515, Mobile, Ala. (H-Hvy)

Higgison, Peyton, 59½ St. Francis St., P. O. Box 402, Mobile, Ala. (B)

Jarrell, L. L., Constr. Co., P. O. Box 36, Whistler, Ala. (H-Hvy-RR)

Newman, Stanley W., Co., Inc., Merchants National Bank Bldg., P. O. Box 1646, Mobile, Ala. (B)

Pate, J. F., Constr. Co., Annex 1st National Bank Bldg., P. O. Box 375, Mobile 3, Ala. (B)

Roberts & Long Constr. Co., Merchants Bank Bldg., Mobile, Ala. (B)

Walker-Lewis Constr. Co., 58 St. Francis St., P. O. Box 703, Mobile, Ala. (B)

Walton, J. S., & Co., P. O. Box 863, Mobile, Ala. (H-Hvy)

Montgomery Section

President—Neil G. Andrew, Andrew & Dawson, 32 Clayton, P. O. Box 1301, Montgomery, Ala.

Secretary-Treasurer—A. Berney Jones, 409 Monroe St., P. O. Box 1528, Montgomery, Ala.

Andrew & Dawson, 32 Clayton, P. O. Box 1301, Montgomery, Ala. (B)

Bear Bros., Inc., P. O. Box 1149, Montgomery, Ala. (B)

Butler & Cobbs, 723 Bell Bldg., P. O. Box 1608, Montgomery, Ala. (B)

Jones, A. Berney, 409 Monroe St., P. O. Box 1528, Montgomery, Ala. (B)

Upchurch, W. K., Constr. Co., Box 1189, Montgomery, Ala. (B)

2. ARIZONA

(a) ARIZONA CHAPTER

President—W. E. Naumann, M. M. Sundt Constr. Co., P. O. Box 2592, Tucson, Ariz.

Secretary—Joseph P. Condrey, 324 Luhrs Bldg., Phoenix, Ariz.

Telephone: Alpine 4-1818

Allied Constr. Co., 2502 N. 44th St., Phoenix, Ariz. (B)

Arizona Sand & Rock Co., P. O. Box 596, Phoenix, Ariz. (H-Hvy)

Ashton Bldg. Co., 2025 E. 22d, Tucson, Ariz. (B)

Associated Constr. Co., 2337 E. Camelback Rd., Phoenix, Ariz. (B)

Beall, I. G., P. O. Box 1453, Phoenix, Ariz. (H)

Bechtel Corp., P. O. Box 947, Tempe, Ariz. (B)

Bechtel Corp., 220 Bush St., San Francisco 4, Calif. (B-H-Hvy)

Bentson Contr. Co., 2800 S. Central, Phoenix, Ariz. (H)

Benz, Dale, Inc., P. O. Box 6007, Phoenix, Ariz. (B)

Bradley & Dysart, 2726 E. Picadilly, Phoenix, Ariz. (H)

Construction Materials Co., P. O. Box 2768, Tucson, Ariz. (H)

Cook, Geo. F., Constr. Co., 2833 Lyndale Ave., So., Minneapolis 8, Minn. (B)

Daum-Donaldson Constr. Co., 321 S. 24th St., Phoenix, Ariz. (B-Hvy)

Farmer & Godfrey, 4202 E. Osborn Rd., Phoenix, Ariz. (B)

Fisher Contr. Co., P. O. Box 6306, Phoenix, Ariz. (H-Hvy)

Flickinger, D. A., 1261 E. Cambridge, Phoenix, Ariz. (H)

Hallmark Constr. Co., 595 S. 10th St., Glendale, Ariz. (Hvy)

Henson, W. J., Box 471, 817 Crest Ave., Prescott, Ariz. (H)

Heuser & Garnett, 731 N. 19th Ave., Phoenix, Ariz. (H)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

ARIZONA—Continued

Holmes, T. C., 1840 N. 27th Ave., P. O. Box 1309, Phoenix, Ariz. (H)
 Homes & Son Constr. Co., 1420 E. Bethany Home Rd., Phoenix, Ariz. (H)
 Hooper Concrete Pipe Co., 2025 S. 7th St., Phoenix, Ariz. (H)
 Isbell Constr. Co., Inc., P. O. Box 2351, Reno, Nev. (H)
 Johnson Constr. Co., Box 4036, Tucson, Ariz. (H)
 Kelton, John C., & Son, 4525 N. 7th St., Phoenix, Ariz. (H)
 Kiewit, Peter, Sons' Co., 345 Kieways Ave., Arcadia, Calif. (H)
 Kitchell-Phillips Constrs., Inc., 1706 W. Buchanan, Phoenix, Ariz. (B)
 Kolob Constr. Co., P. O. Box 1832, Phoenix, Ariz. (H)
 Krall, Emil H., 1825 N. 11th Ave., Phoenix, Ariz. (H)
 Laing-Garrett Constr. Specialties, Inc., 4700 N. Central Ave., Phoenix, Ariz. (B)
 Larsen, A. A., P. O. Box 1790, Phoenix, Ariz. (H)
 Macco Corp., 14409 Paramount Blvd., Paramount, Calif. (H-Hvy)
 Maddox, C. L., Box 1011, Phoenix, Ariz. (B)
 Mardian Constr. Co., 1314 N. 21st Ave., Phoenix, Ariz. (B)
 Marshall, Haas & Royce, P. O. Box 95, Belmont, Calif. (H-Hvy)
 Martin Constr. Co., P. O. Box 934, Tucson, Ariz. (H)
 McGinty Constr. Co., 503 Luhrs Bldg., Phoenix, Ariz. (B)
 McKee, Robt. E., P. O. Box 217, El Paso, Texas (B-Hvy)
 Mohamed Earthmoving Contr., 1700 S. 1st St., Phoenix, Ariz. (H)
 Newbery Elec. Corp. of Arizona, 2146 E. Washington, Phoenix, Ariz. (Hvy)
 New State Elec. Co., 214 W. Washington, Phoenix, Ariz. (Hvy)
 Orr & Orr Constr. Co., 302 W. Monte Vista Rd., Phoenix, Ariz. (H)
 Panelcrete Engr. Co., 1900 Beverly Blvd., Los Angeles 4, Calif. (B-H-Hvy)
 Payne, Dale, 2345 W. Thomas Rd., Phoenix, Ariz. (H)
 Phoenix-Tempe Stone Co., P. O. Box 1670, Phoenix, Ariz. (H-Hvy)
 Pinner, Arthur, Jr., 116 W. 94th St., Los Angeles, Calif. (H-Hvy)
 Pioneer Constrs., Inc., Box 2768, Tucson, Ariz. (H)
 Price, Lyle, P. O. Box 548, Flagstaff, Ariz. (H)
 Royden, H. L., P. O. Box 3707, Phoenix, Ariz. (H-Hvy)
 Sale, Paul L., Steel Mfg. Co., Inc., 116 E. 4th Ave., Mesa, Ariz. (H)
 San Xavier Rock & Sand Co., P. O. Box 1031, Tucson, Ariz. (H)
 Shift, Murray J., Constr. Co., P. O. Box 1190, Tucson, Ariz. (H)
 Skousen, W. R., P. O. Box 71, Mesa, Ariz. (H)
 Stearns-Roger Mfg. Co., 1718-1722 California St., Denver 2, Colo. (H)
 Sundt, M. M., Constr. Co., P. O. Box 2592, Tucson, Ariz. (B-Hvy)

T. G. K. Constr. Co., Inc., 802 Security Bldg., Phoenix, Ariz. (B)
 Tanner Bros. Constr. Co., 731 N. 19th Ave., Phoenix, Ariz. (H-Hvy)
 Tiffany Constr. Co., P. O. Box 846, Phoenix, Ariz. (H-Hvy)
 Vinnell Co., Inc., 1145 Westminster Ave., Alhambra, Calif. (H-Hvy)
 Vinson Constr. Co., 2020 W. Grant Ave., P. O. Box 930, Phoenix, Ariz. (H-Hvy)
 Wallace & Wallace Contrs., P. O. Box 470, Phoenix, Ariz. (H)
 Wasielewski, E. J., 24 E. Glendale Ave., Phoenix, Ariz. (B)
 Webb, Del E., Constr. Co., P. O. Box 4066, Phoenix, Ariz. (B-Hvy)
 Welsh, J. H., & Son Contr. Co., 805 S. Central Ave., Phoenix, Ariz. (Hvy)
 Western Constrs., Inc., P. O. Box 1604, Phoenix, Ariz. (H-Hvy)
 White, L. M., Contr. Co., P. O. Box 6008, Tucson, Ariz. (H)
 Womack Constr. Co., Box 2414, Phoenix, Ariz. (B-Hvy)

3. ARKANSAS

(a) ARKANSAS CHAPTER

President—J. K. Fraser, Fraser Constr. Co., Inc., P.O. Box 717, Fort Smith, Ark.
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Armbrust, E. E., 107 Atkins St., North Little Rock, Ark. (B)
 Arney, Arthur J., 1503 Ohio St., P. O. Box 841, Pine Bluff, Ark. (B)
 Baldwin Co., The, 213 Wallace Bldg., Little Rock, Ark. (B)
 Baldwin, Phil B., 504 Wallace Bldg., Little Rock, Ark. (B)
 Bralei Homes, Inc., Box 232, North Little Rock, Ark. (B)
 Branton Co., P. O. Box 2260, Little Rock, Ark. (B)
 Burden, Geo. H., Co., Inc., E. 5th & McLean Sts., Little Rock, Ark. (B)
 Carty, Herman, 213 Riegler Bldg., Little Rock, Ark. (B)
 Coogan, Thos. P., Co., 435 Hialeah Dr., Hialeah, Fla. (B)
 Davis, R. H., Box 36, Stamps, Ark. (H)
 Dills, Bob, Inc., 502 Merchants Bank Bldg., Fort Smith, Ark. (H)
 Ditmars-Dickmann-Pickens Constr. Co., Gazette Bldg., Little Rock, Ark. (B)
 Dixon, S. M., 307 Chestnut St., Warren, Ark. (H)
 Evans, S. E., Constr. Co., Box 903, Fort Smith, Ark. (H-Hvy-RR)
 Forsgren Bros., P. O. Box 368, Fort Smith, Ark. (H)
 Four Bros., Inc., P. O. Box 167, Sweet Home, Ark. (H-Hvy)
 Fraser Constr. Co., Inc., P. O. Box 717, Fort Smith, Ark. (B)
 G. W. L. Constr. Co., P. O. Box 455, North Little Rock, Ark. (B)
 Garms, Grady, 29th & Elm Sts., P. O. Box 823, Little Rock, Ark. (H)

Gregory, Artie, Box 1108, Little Rock, Ark. (H)
 Hammock, R. W., Rt. 1, Van Buren, Ark. (B-H-Hvy-RR)
 Higgins, R. T., P. O. Box 813, Hot Springs, Ark. (B)
 Hill, D. B., 619 Parker St., P. O. Box 2437, Little Rock, Ark. (H-RR)
 Hogan, Ben M., & Co., Box 2860, Little Rock, Ark. (H-Hvy)
 James, Worth, Constr. Co., 1007 Pyramid Bldg., Little Rock, Ark. (H)
 Jones, D. F., Constr. Co., Box 2660, Little Rock, Ark. (H-Hvy)
 Kelley-Nelson Constr. Co., P. O. Box 1678, Little Rock, Ark. (B)
 M & L Constr. Co., 207 Riegler Bldg., Little Rock, Ark. (H-Hvy)
 May, G. W., Box 306, Little Rock, Ark. (B)
 McGeorge Contr. Co., Inc., Box 248, Pine Bluff, Ark. (H-Hvy)
 Mississippi Valley Contr. Co., Inc., P. O. Box 97, Paragould, Ark. (H-Hvy)
 Mode & McCracken, Conway, Ark. (H-Hvy)
 Mooney, Ed. B., Inc., 302 Cottage St., Hot Springs, Ark. (B)
 Peterson, Garbi & Joseph, Inc., 123 E. 9th St., North Little Rock, Ark. (B)
 Pyle, J. E., P. O. Box 1679, Little Rock, Ark. (B)
 Reynolds & Williams, 115 N. Spring St., P. O. Box 1207, Little Rock, Ark. (H)
 Richardson, P. L. Co., 224 N. Gaines, Little Rock, Ark. (B)
 Smith, Linwood, Box 369, Lake Village, Ark. (H-Hvy-RR)
 Southeast Constr. Co., Inc., P. O. Box 16, 127½ Main St., Pine Bluff, Ark. (H-Hvy)
 Tri-States Constr. Co., 316 Hall Bldg., Little Rock, Ark. (B)
 Winans Constr. Co., 5009 W. 11th St., P. O. Box 2476, Little Rock, Ark. (B)
 Wooten Constr. Co., 609 Wallace Bldg., Little Rock, Ark. (B)

4. CALIFORNIA

(a) CENTRAL CALIFORNIA CHAPTER

President—Melvin F. Gautier, Carrico & Gautier, 365 Ocean Ave., San Francisco 12, Calif.
Secretary-Manager—Frank G. Corker, 850 Battery St., San Francisco 11, Calif.
Telephone: Yukon 6-5969

Acme Constr. Co., 827 13th St., Modesto, Calif. (B)
 Akard, W. C., 225 Cervantes Blvd., San Francisco 23, Calif. (B)
 American Pipe & Constr. Co., P. O. Box 3428, Terminal Annex, Los Angeles 54, Calif. (Hvy)
 Amoroso, S. J., Constr. Co., 2100 Oakdale Ave., San Francisco 24, Calif. (B-Hvy)
 Anderson, O. E., 1075 N. 10th St., Box 251, San Jose, Calif. (B)
 Arras, Adam, & Son, 855 Treat Ave., San Francisco 10, Calif. (B)

A.G.C. DIRECTORY

CALIFORNIA—Continued

- B. & R. Constr. Co., 110 Market St., San Francisco 11, Calif. (B)
- Bakers Beach Bldrs., 112 Market St., San Francisco 11, Calif. (B)
- Bardell, Robt., 2733 Linden St., Oakland 12, Calif. (B)
- Barnes, Jos. L., Constr. Co., 750 Folsom St., San Francisco 7, Calif. (B)
- Barrett & Hilp, 918 Harrison St., San Francisco 7, Calif. (B-Hvy)
- Beckett & Federighi, 1441 Franklin St., Oakland 12, Calif. (B-Hvy)
- Bettancourt, Jos., 1015 San Mateo Ave., San Bruno, Calif. (B)
- Bianchi, Geo. J., 1850 S. 7th St., San Jose, Calif. (B)
- Bingham Constr. Co., 6329 Eastern Ave., Sacramento, Calif. (B)
- Bishop, Younger, Bradley Co., 405 Sansome St., San Francisco 11, Calif. (B)
- Bridges Constr. Co., 350 N. Montgomery St., P. O. Box 966, San Jose 10, Calif. (B)
- Bryant, J. A., 1806 Capitol St., Vallejo, Calif. (B)
- Cahill Bros., Inc., 350 Sansome St., San Francisco 4, Calif. (B-Hvy)
- Campbell Constr. Co., P. O. Box 390, Sacramento 2, Calif. (B-Hvy)
- Carlen Constr. Co., Assoc., Monadnock Bldg., 681 Market St., San Francisco 5, Calif. (B)
- Carrico & Gautier, 365 Ocean Ave., San Francisco 12, Calif. (B-Hvy)
- Carroll, A. C., 130 College Ave., Modesto, Calif. (B)
- Carter, Geo. W., Co., 1721 W. Olympic Blvd., Los Angeles 15, Calif. (B)
- Central California Constr. Co., 75 Elmira St., San Francisco 24, Calif. (B-Hvy)
- Christensen & Lyons, 3454 Harlan St., Oakland 8, Calif. (B-Hvy)
- Clinton Constr. Co., 923 Folsom St., San Francisco 7, Calif. (B-Hvy)
- Concrete Conduit Co., 899 S. La Cadena Ave., P. O. Box 1257, Lindsay, Calif. (Hvy)
- Continental Constr. Co., Inc., 4671 24th St. Rd., P. O. Box 2551, Sacramento, Calif. (B-Hvy)
- Daley, Morris, Rm. 211, 1350 Howard Ave., Burlingame, Calif. (B)
- De Luca & Son, 1745 Filbert St., San Francisco 23, Calif. (B-Hvy)
- Dinwiddie Constr. Co., Inc., 210 Crocker Bldg., San Francisco 4, Calif. (B-Hvy)
- Donahue, E. J., 355 E. Market St., Salinas, Calif. (B)
- Dunn, Louis C., Inc., 681 Market St., San Francisco 5, Calif. (B-Hvy)
- Early, Fred J., Jr., Co., Incorporated, 369 Pine St., San Francisco 4, Calif. (B-Hvy)
- Ehorn, Liston, 925 Jackson St., P. O. Box 328, Red Bluff, Calif. (B)
- Emsco of San Francisco, 1020 Harrison St., San Francisco 3, Calif. (B)
- Engineers, Ltd., 225 Bush St., San Francisco 4, Calif. (B-Hvy)
- Erbentraut & Summers, 696 Pennsylvania Ave., San Francisco 7, Calif. (B-Hvy)
- Erickson Constr. Co., 1119 E. Bassettlaw Ave., North Sacramento, Calif. (B)
- Falasco, Ted, 952 J St., Los Banos, Calif. (B)
- Finson & Oddstad, Inc., 6798 Mission St., Daly City, Calif. (B)
- Fisher, Alfred P., 300 Montgomery St., San Francisco 4, Calif. (B)
- Fitchett, Leslie, & Son, P. O. Box 1495, Merced, Calif. (B)
- Fitzmaurice, J. H., 2857 Hannah St., Oakland 8, Calif. (B-Hvy)
- Freethy Elmer J., 1432 Kearny St., El Cerrito, Calif. (B-Hvy)
- Geyer, Harold C., 787 Munras Ave., Box 1190, Monterey, Calif. (B-Hvy)
- Giusto, B. L., 40 Ringold St., San Francisco 3, Calif. (B)
- Goodenough, Wells P., Inc., 49 Wells Ave., Box 120, Palo Alto, Calif. (B-Hvy)
- Gould Constr. Co., The, 680 Laurel St., San Carlos, Calif. (B)
- Graham & Jensen, P. O. Box 1208, Merced, Calif. (B)
- Green, Geo. B., 16235 Hesperian Blvd., San Lorenzo, Calif. (B)
- Gresham Constr. Co., P. O. Box 300, Santa Clara, Calif. (B)
- Guth & Schmidt, 2821 S St., Sacramento, Calif. (B)
- Harlan, B. W., 1646 Tehama St., Redding, Calif. (B)
- Harris Constr. Co., Inc., P. O. Box 109, Fresno, Calif. (B)
- Hathaway, E. A., & Co., 1098 S. 5th St., San Jose 12, Calif. (B)
- Hedahl-Martin Co., The, 501 Standish St., Redwood City, Calif. (B)
- Herrington, G. S., P. O. Box 708, Auburn, Calif. (B)
- Holdener Constr. Co., 2608 R St., Sacramento, Calif. (B)
- Hopper Co., 876 Harrison St., San Francisco 7, Calif. (B)
- Horstmeyer, Wm., Co., 23 Mars St., San Francisco 14, Calif. (B)
- Jacks & Irvine, 620 Market St., San Francisco 4, Calif. (B-Hvy)
- Johnson, Drake & Piper, Inc., 9009 San Leandro St., Oakland 3, Calif. (B-Hvy)
- Johnson, Joel, & Son, 1614 Church St., San Francisco 14, Calif. (B)
- Kalsched, W. R., & Co., 201 San Jose Ave., San Jose, Calif. (B)
- Kelly Bros., Inc., 946 Stockton Ave., San Jose, Calif. (B)
- Kimes, Kenneth K., 201 W. Acacia St., Salinas, Calif. (B)
- King, M. J., Inc., 231 Franklin St., San Francisco 2, Calif. (B)
- Landis Bldg. & Investment Co., 9363 Wilshire Blvd., Beverly Hills, Calif. (B)
- Larsen, Ira H., Co., 64 S. Park, San Francisco 7, Calif. (B)
- Larsen & Larsen, Inc., 2455 Mason St., San Francisco 11, Calif. (B)
- Lawrence Constr. Co., 3020 V St., Sacramento, Calif. (B)
- Lena, Nat., 1174 19th St., Oakland 7, Calif. (B-Hvy)
- Lewis, Nelson T., 723 C St., Hayward, Calif. (B)
- Lewis, R. C., Constr., Inc., 1815 Telegraph Ave., Oakland 12, Calif. (B-Hvy)
- Litchfield Constr. Co., 721 Francisco Blvd., San Rafael, Calif. (B)
- Little, Matthew A., 1 Grand View Ave., San Francisco 14, Calif. (B)
- Mackey, Edwin J., 720 Howe Ave., Sacramento 16, Calif. (B)
- Markwart, Howard S., 4801 24th Street Rd., Sacramento, Calif. (B)
- McCabe, Jas., P. O. Box 852, Chico, Calif. (B)
- McCarthy, Robt., Co., 1050 Kirkham St., San Francisco 22, Calif. (B-Hvy)
- McDaniel Constr. Co., P. O. Box 1631, Marysville, Calif. (B)
- McGranahan, K. J., 500 Spring St., Santa Cruz, Calif. (B)
- McWethy, L. R., P. O. Box 743, Monterey, Calif. (B)
- Merritt, E. Philip, P. O. Box 414, 10 De Luca Pl., San Rafael, Calif. (B)
- Meyer, Theo. G., & Sons, 200 Quint St., San Francisco 24, Calif. (B)
- Midstate Constr. Co., 347 Clay St., Corner Battery St., San Francisco 11, Calif. (B-Hvy)
- Mitchell, Harry J., P. O. Box 230, Oroville, Calif. (B)
- Modern Bldg. Co., P. O. Box 635, Chico, Calif. (B)
- Monson Bros., 475 6th St., San Francisco 3, Calif. (B-Hvy)
- Moore, E. H., & Sons, 693 Mission St., San Francisco 5, Calif. (B-Hvy)
- Morton, Jas. P., Constr. Co., 33 Clay St., Placerville, Calif. (B)
- Nicholson, W. J., 981 Fremont St., Santa Clara, Calif. (B)
- Norlie Constr. Co., P. O. Box 256, 2209 Park Ave., Chico, Calif. (B)
- Odman, Arthur, P. O. Box 147, Fair Oaks, Calif. (B)
- Olsen, Walter L., 125 Brookwood Ave., Santa Rosa, Calif. (B)
- Otto, C. A., 717 10th St., Marysville, Calif. (B)
- Overaa, C., & Co., Inc., 520 16th St., Richmond, Calif. (B)
- Pacific Coast Bldrs., 2530 18th St., San Francisco 10, Calif. (B)
- Pacific Co., The, 801 Cedar St., Berkeley 10, Calif. (B)
- Panelcrete of California, Inc., 458 Porter Bldg., San Jose 13, Calif. (B)
- Parker, Steffens & Pearce, 135 S. Park, San Francisco 7, Calif. (B-Hvy)
- Payne Constr. Co., Inc., 689 Louisiana St., Oakland 3, Calif. (B)
- Payne, Frank A., & Son, 2600 Virginia St., Berkeley 9, Calif. (B)
- Peterson, C. Norman, Constr., 2832 9th St., Berkeley 2, Calif. (B)
- Peterson Constr. Co., P. O. Box 624, Los Altos, Calif. (B)
- Phillips, C. S., 139-A Redwood Hwy., No., Petaluma, Calif. (B)
- Prichard, Thos. J., Jr., 1606 Bremer Ave., Fresno, Calif. (B)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

CALIFORNIA—Continued

Reese, Morrison W., 1262 Minnesota Ave., San Jose 25, Calif. (B)
 Robertson, H. W., Inc., 2917 T St., Sacramento 16, Calif. (B-Hvy)
 Rosewall, T. H., 544 Main St., Watsonville, Calif. (B)
 Sartorio, Peter, 262 Clementina St., San Francisco 3, Calif. (B)
 Schell, Fred W., 41 Sutter St., San Francisco 4, Calif. (B)
 Shedd, Wm. S., 808 Forbes Ave., Yuba City, Calif. (B)
 Sjoberg, N. H., & Son, 5604 E. 16th St., Oakland 3, Calif. (B)
 Standard Bldg. Co., 2222 19th Ave., San Francisco 16, Calif. (B)
 Starrett Brothers and Eken, Incorporated, 3711 19th Ave., San Francisco 27, Calif. (B-Hvy)
 Stendell, Elvin C., 26th & Kansas Sts., San Francisco 10, Calif. (B)
 Stevenson-Pacific, 1079 Chestnut, P. O. Box 1042, Redwood City, Calif. (B)
 Stockholm, Chas., & Sons, 351 California St., San Francisco 4, Calif. (B)
 Swenson, Carl N., Co., Inc., 1095 Stockton Ave., P. O. Box 558, San Jose 4, Calif. (B-Hvy)
 Swinerton & Walberg Co., 225 Bush St., San Francisco 4, Calif. (B-H)
 Tait, W. C., 2300 Mason St., San Francisco 11, Calif. (B-Hvy)
 Todd, R. R., 915 Beaver St., Santa Rosa, Calif. (B)
 Tombleson & Huck, Inc., P. O. Box 1388, Salinas, Calif. (B)
 Van Bokkelen-Cole Co., 955 W. Grand Ave., Oakland 7, Calif. (B)
 Waterbury & Chapek, 605 Fremont Way, Sacramento, Calif. (B)
 Webb, Del E., Constr. Co., 5101 San Fernando Rd., W., Los Angeles 39, Calif. (B-Hvy)
 White, Howard J., Inc., 44 Encina Ave., Palo Alto, Calif. (B)
 Williams & Burrows, Inc., 18 W. Orange Ave., South San Francisco, Calif. (B-Hvy)
 Wisner & Miller, 730 N. California St., Lodi, Calif. (B)

**(b) NORTHERN CALIFORNIA
CHAPTER**

President—Dallas Young, MacDonald, Young & Nelson, Inc., 351 California St., San Francisco 4, Calif.
Secretary-Manager—Winfield H. Arata, 850 Battery St., San Francisco 11, Calif.
Telephone: Yukon 6-5969

Ace Excavators, 1020 44th Ave., Oakland 1, Calif. (H-Hvy)
 Alves, Eugene G., Constr. Co., Inc., P. O. Box 950, Pittsburg, Calif. (H-Hvy)
 Amaral, M., 512 Baker St., Petaluma, Calif. (H-Hvy)
 Anson-Smith Constr. Co., 326 Eye St., Marysville, Calif. (H-Hvy)
 Archibald, F. R., 718 Douglas Ave., Oakland 3, Calif. (Hvy)

Archibald, J. O., 929 Shasta St., Redwood City, Calif. (H)
 Ariss-Knapp Co., 961 41st St., Oakland 8, Calif. (H-Hvy)
 Armstrong, J. R., 5741 Central Ave., El Cerrito, Calif. (H-Hvy)
 Associated Engrs., 3606 El Camino Real, Palo Alto, Calif. (H-Hvy)
 Associated Pipeline, Inc., P. O. Box 563, Colma 25, Calif. (Hvy)
 Asta Constr. Co., P. O. Box 758, Rio Vista, Calif. (Hvy)
 Atkinson, Guy F., Co., 10 W. Orange Ave., P. O. Box 593, South San Francisco, Calif. (H-Hvy)
 Bailey, Jay, Constr. Co., P. O. Box 127, Woodland, Calif. (B-Hvy)
 Baldwin Contr. Co., Inc., 26 Francisco Blvd., San Rafael, Calif. (B-H-Hvy)
 Ball, N. M., Sons, 685 Delaware St., Berkeley 10, Calif. (H-Hvy)
 Ball & Simpson, 685 Delaware St., Berkeley 10, Calif. (H-Hvy)
 Barbettini, E., 2251 Quesada Ave., San Francisco 24, Calif. (H-Hvy)
 Bateman, J. C., Inc., 650 Stockton Ave., San Jose 11, Calif. (H-Hvy)
 Bates & Rogers Construction Corporation, Rm. 1122, 209 Post St., San Francisco 8, Calif. (Hvy-RR)
 Baun Constr. Co., 324 Princeton, Fresno, Calif. (H-Hvy)
 Bechtel Corp., 220 Bush St., San Francisco 4, Calif. (B-H-Hvy)
 Beerman & Jones, Sonora, Calif. (H)
 Bigge Crane & Rigging Co., 2387 Campbell St., Oakland 7, Calif. (Hvy)
 Blakeslee-Spierung Co., Box 267, Arcata, Calif. (B-Hvy)
 Blomquist Oil Service, Inc., P. O. Box 431, Redwood City, Calif. (H)
 Bobo, Fabian, 7 Ignacio Lane, Novato, Calif. (H)
 Bormolini, Louis, & Son, P. O. Box 101, Novato, Calif. (B-H-Hvy)
 Bottini, Mario, 802 "C" St., San Rafael, Calif. (Hvy)
 Bragato Paving Co., 1650 Old County Rd., Belmont, Calif. (H)
 Breen, J. P., P. O. Box 183, Sacramento 1, Calif. (H-Hvy)
 Bressi & Bevanda Constrs., Inc., P. O. Box 439, North Hollywood, Calif. (Hvy-RR)
 Brighton Sand & Gravel Co., P. O. Box 2604, Sacramento 10, Calif. (H-Hvy)
 Brown-Ely Co., 7360 Schmidt Lane, P. O. Box 156, El Cerrito, Contra Costa County, Calif. (H-Hvy)
 Brown, M. W., Box 222, Redding, Calif. (H-Hvy)
 Burman, John, & Sons, 2750 Harrison Ave., Eureka, Calif. (H-Hvy)
 Burnett Constr. Co., 159 W. Glenn St., P. O. Box 487, Coalinga, Calif. (Hvy)
 Butte Creek Rock Co., P. O. Box 512, Chico, Calif. (H-Hvy)
 California Steel Prods. Co., Ind. Constr. & Maint. Div., Barrett Ave. & "A" St., Richmond, Calif. (Hvy)
 Callahan Constr. Co., 1550 Annie St., Colma 25, Calif. (H-Hvy)
 Campbell Constr. & Equip. Co., 1150 Folsom St., San Francisco 4, Calif. (H-Hvy-RR)

Cannon Constr. Co., P. O. Box 1947, Stockton, Calif. (H-Hvy)
 Capital Co., 1 Powell St., San Francisco 2, Calif. (B-Hvy)
 Capps, Gordon L., P. O. Box 583, Stockton, Calif. (H-Hvy)
 Cardarelli, G. E., 2288 San Bruno Ave., San Francisco, Calif. (B)
 Cardwell, Leo, Constr. Co., 530 Pacific Ave., Santa Cruz, Calif. (H-Hvy)
 Carstensen, John A., P. O. Box 37, Castro Valley, Calif. (H-Hvy)
 Castro, Earl W., Rt. 2, Box 202, Martinez, Calif. (H-Hvy)
 Castro Valley Rock Co., 20450 John St., Hayward, Calif. (H-Hvy)
 Cement Gun Constr. Co., Inc., P. O. Box 417, Sausalito, Calif. (Hvy)
 Chevreux, Joe, P. O. Box 65, Sta. A., Auburn, Calif. (H-Hvy)
 Clark, L. C., 422 Park Ave., Visalia, Calif. (H-Hvy)
 Clements & Co., P. O. Box 277, 775 Jackson St., Hayward, Calif. (H)
 Clifford, R. G., & C. O. Bodenhamer, 2950 Claremont Ave., Berkeley, Calif. (H-Hvy)
 Close Bldg. Supply, 721 C St., Hayward, Calif. (H)
 Clough, L. M., Co., 996 66th Ave., Oakland 3, Calif. (H-Hvy)
 Coast Pipeline Contrs., 580 Bragato Rd., Belmont, Calif. (H-Hvy)
 Condict Co., 806 Hearst Ave., Berkeley 2, Calif. (B-Hvy)
 Conduit Constr. Co., P. O. Box 502, Walnut Creek, Calif. (Hvy)
 Conner, Harvey E., P. O. Box 1012, Redwood City, Calif. (Hvy)
 Conner, J. L., Jr., Box 835, Eureka, Calif. (H)
 Corbett, Frank D., 99 N. 17th St., Sacramento 14, Calif. (B-Hvy)
 Crocco & Hanson, 22 California St., Vallejo, Calif. (H-Hvy)
 Cunningham, Chas. L. Co., 334 S. Yosemite Ave., P. O. Box E, Oakdale, Calif. (B-Hvy)
 daRoza Ribal, Inc., P. O. Box 181, Dutch Flat, Calif. (B-H)
 Darrrough, W. H., & Sons, P. O. Box 392, Live Oak Hwy., Yuba City, Calif. (H-Hvy)
 Delphia, John, P. O. Box 607, 14 N. 3d St., Patterson, Calif. (H-Hvy)
 Delta Constr. Co., P. O. Box 457, Rio Vista, Calif. (H-Hvy)
 de Silva, Oliver, 2330 Clement Ave., Alameda, Calif. (H)
 Douglass, Joe W., 890 Sunol St., San Jose, Calif. (H-Hvy)
 Douglass & Woodhouse, P. O. Box 908, Redwood City, Calif. (H)
 Downer Co., Inc., 305 E. Weber St., Stockton 11, Calif. (H-Hvy)
 Dreher & Beaulieu, 235 S. 18th St., Richmond, Calif. (B-Hvy)
 Duncanson-Harrelson Co., The, 530 W. Cutting Blvd., Richmond, Calif. (Hvy)
 Eaton & Smith, 1215 Michigan St., San Francisco 7, Calif. (H-Hvy-RR)
 Edwards, Jas. J., 904 Elm St., San Carlos, Calif. (Hvy)

CALIFORNIA—Continued

- Ehrhart & Arthur, Inc., 417 S. Hill St., Rm. 920, Los Angeles 13, Calif. (B-Hvy)
 Eichleay Corp., P. O. Box 336, Mountain View, Calif. (Hvy)
 Ely, I. J., Co., 101 Highway, Larkspur, Calif. (H)
 Emco of San Francisco, 1020 Harrison St., San Francisco 3, Calif. (B-H-Hvy)
 Engineered Fixture Systems, P. O. Box 203, Mountain View, Calif. (B-Hvy)
 Engineers Ltd. Pipeline Co., 2128 San Pablo Ave., El Cerrito, Calif. (Hvy)
 Erickson, Al. & Co., P. O. Box 384, Napa, Calif. (H-Hvy)
 Erickson, Oscar E., 249 Tewksbury Ave., Richmond 3, Calif. (Hvy)
 Erickson, Phillips & Weisberg, 350 Market St., Concord, Calif. (H-Hvy)
 Farish, Robt. A., 50 Hawthorne St., San Francisco 5, Calif. (H)
 Fay Improvement Co., 101 Carolina St., San Francisco 3, Calif. (H-Hvy)
 Fazio, Walter E., 981 Coronado Blvd., Sacramento, Calif. (B-Hvy)
 Ferguson Bros., 8923 San Leandro St., Oakland 3, Calif. (Hvy)
 Fogelberg, O. A., Mt. Diablo Blvd. & Elizabeth St., Lafayette 2, Calif. (Hvy)
 Foley & Krueger, Inc., 3506 Haven Ave., Redwood City, Calif. (H-Hvy)
 Forde, E. A., Co., 3 Bank St., P. O. Box 306, San Anselmo, Calif. (H)
 Fortuna Constr. Co., P. O. Box 454, Fortuna, Calif. (B-Hvy)
 France, Geo. E., Inc., P. O. Box 831, Visalia, Calif. (H)
 Frances Constr. Co., 1929 Sonoma Ave., Santa Rosa, Calif. (B-Hvy)
 Fredrickson Bros., 1259 65th St., Emeryville, 8, Calif. (B-H-Hvy)
 Frederickson & Watson Constr. Co., 873 81st Ave., Oakland 3, Calif. (B-H-Hvy)
 Freeman Paving Co., 220 Lambert Ave., Palo Alto, Calif. (H)
 French, Geo., Jr., Box 307, 2101 E. Weber St., Stockton, Calif. (H-Hvy-RR)
 Furrer, John A., 204 El Camino Real, Millbrae, Calif. (H-Hvy)
 Gallagher & Burk, Inc., 344 High St., Oakland, Calif. (H-RR)
 Gerwick, Ben C., Inc., 112 Market St., San Francisco 11, Calif. (H-Hvy)
 Ghilotti Bros., Inc., 629 Francisco Blvd., San Rafael, Calif. (Hvy)
 Gist, John C., 1020 46th St., Sacramento 16, Calif. (Hvy)
 Granite Constr. Co., Box 900, Watsonville, Calif. (B-H-Hvy-RR)
 Graves, Donald, 185 Cunningham Ave., San Jose, Calif. (H-Hvy)
 Haas, E. T., Co., 407 Harbor Blvd., Belmont, Calif. (Hvy)
 Haas & Haynie, 275 Pine St., San Francisco, Calif. (B-H-Hvy-RR)
 Harmeling, Carl C., 1710 Mt. Diablo, Stockton, Calif. (H-Hvy)
 Harms Bros., 5261 Stockton Blvd., Sacramento 17, Calif. (H-Hvy)
 Harney, Chas. L., Inc., 575 Berry St., San Francisco 7, Calif. (H-Hvy)
 Harris & Allen, 822 Skyline Ave., Avenal, Calif. (H-Hvy)
 Harris, J. Henry, 2657 9th St., Berkeley 2, Calif. (H)
 Hasler, M. H., Constr. Co., & D & H Constr. Co., 77 South Benton, Kennewick, Wash. (H-Hvy)
 Helwig Constr. Co., 167 Morris Ave., Sebastopol, Calif. (B-H-Hvy)
 Heple, Earl W., Estate, Utility Div., P. O. Box 414, San Jose, Calif. (Hvy)
 Heraty & Gannon, 3625 MacArthur Blvd., Oakland, Calif. (B-Hvy)
 Hertel, R. E., 2904 Regina Way, Sacramento, Calif. (Hvy)
 Hess-Mace Trucking Co., P. O. Box 128, Dixon, Calif. (H-Hvy)
 Hill, Jas. W., 2198 Mt. Diablo Blvd., Walnut Creek, Calif. (Hvy)
 Huettig, Schromm & Bennett, P. O. Box 798, 300 Bryant St., Palo Alto, Calif. (H-Hvy)
 Huntington Bros., P. O. Box 474, Napa, Calif. (H-Hvy)
 Immel, Lee J., 3030 San Pablo Ave., San Pablo, Calif. (H-Hvy)
 Independent Constr. Co., 741 50th Ave., Oakland 1, Calif. (B-H-Hvy-RR)
 Industrial Engrs. & Contrs., Inc., 711 Middle Waterway, Tacoma, Wash. (B-Hvy)
 Jensen & Pitts, 931 2d St., San Rafael, Calif. (H-Hvy)
 Johnson, A. C., & Sons, 25 6th St., Eureka, Calif. (B-Hvy)
 Johnson Western Constrs., 4430 Clement St., Oakland, Calif. (B-H)
 Jones, Lew, Constr. Co., 1535 S. 10th St., San Jose, Calif. (H-Hvy)
 Jones, O. C., & Sons, 1520 4th St., Berkeley 10, Calif. (B-H-Hvy)
 Jones, W. B., Palo Cedro, Calif. (H-Hvy)
 Jones, Winton, P. O. Box 34, 1770 Riviera St., Walnut Creek, Calif. (H-Hvy)
 Justice-Dunn Co., 1260 59th St., Oakland 8, Calif. (H)
 Kaiser Engrs., Div. of Henry J. Kaiser Co., 1924 Broadway, Oakland 12, Calif. (Hvy)
 Keeble, Edw., Rt. 4, Box 64, San Jose, Calif. (H-Hvy)
 Kenworthy, C. V., 2037 E. Harding Way, Stockton, Calif. (H-Hvy)
 Ke-Ston Constr. Co., 215 C St., Davis, Calif. (H-Hvy)
 Kevry Constr., Inc., 655 Peralta Ave., San Leandro, Calif. (H-Hvy)
 Kiewit, Peter, Sons' Co., 442 Post St., San Francisco 2, Calif. (Hvy)
 Lane, E. V., Corp., 2675 3d St., P. O. Box 417, Palo Alto, Calif. (H-Hvy)
 Lee Constr. Co., 1575 Lake Chabot Rd., San Leandro, Calif. (H-Hvy)
 Lefever & Bing, Box 535, West Sacramento, Calif. (Hvy)
 Lentz Constr. Co., 2416 Sutterville Rd., Sacramento 17, Calif. (H-Hvy)
 Lord & Bishop, P. O. Box 812, Sacramento 4, Calif. (H-Hvy-RR)
 Los Gatos Constr. Co., P. O. Box 111, Los Gatos, Calif. (H-Hvy)
 Lowrie Paving Co., 1755 Evans Ave., San Francisco 24, Calif. (H)
 Lucke, L. E., 5920 Sutter Ave., Sacramento, Calif. (Hvy)
 Lyles, W. M., Co., P. O. Box 495, Avenal, Calif. (Hvy)
 Lynch, M. J., 2251 Revere Ave., San Francisco 24, Calif. (H-Hvy)
 M. G. M. Constr. Co., P. O. Box 1056, Market St., Concord, Calif. (Hvy)
 M. J. B. Constr. Co., 322 Elks Bldg., Stockton 1, Calif. (H-Hvy)
 M & K Corp., 200 Financial Center Bldg., San Francisco 4, Calif. (B-H-Hvy-RR)
 Macal Improvement Co., Inc., Rt. 1, Box 99, Wilbur Ave., Antioch, Calif. (H-Hvy)
 MacClosky, Chas., Co., 112 Market St., San Francisco 11, Calif. (B-Hvy)
 Maccio Corp., 14409 Paramount Blvd., Paramount, Calif. (H-Hvy)
 MacDonald, Young & Nelson, Inc., 351 California St., San Francisco 4, Calif. (B-H-Hvy-RR)
 Malfitano, M., & Son, Inc., P. O. Box 750, Pittsburg, Calif. (H-Hvy)
 Marks, Frank B., Jr., P. O. Box 668, Newman, Calif. (H-Hvy)
 Marks, Howard E., 203 Berverdor St., Tracy, Calif. (H-Hvy)
 Marshall, S. A., Tacna, Ariz. (H-Hvy)
 Martin Bros., Inc., P. O. Box 5, Concord, Calif. (H-Hvy)
 Maurer, Fred J., & Son, 125 W. 5th St., Eureka, Calif. (B-Hvy)
 McAnulty & Schwartz, 382 E. 10th Ave., Chico, Calif. (B-Hvy)
 McCammon-Wunderlich Co., P. O. Box 359, Palo Alto, Calif. (H-Hvy)
 McCollum, Paul E., Inc., 522 23rd St., Richmond, Calif. (H-Hvy)
 McCosker, A. J., Eastshore Hwy. & Cedar St., Berkeley 2, Calif. (H)
 McCosker, John H., Inc., 1501 Eastshore Hwy. at Jones St., Berkeley, Calif. (H-Hvy)
 McDougall, Natt, Co., 824 Pittcock Bl., Portland 5, Oreg. (B-H-Hvy-RR)
 McElderry, B. S., 2355 Virginia St., Berkeley 9, Calif. (Hvy)
 McFadden, Jos., & Son, Bayshore & San Antonio Rd., Palo Alto, Calif. (H)
 McGillivray Constr. Co., P. O. Box 873, Sacramento, Calif. (H-Hvy)
 McGowan, M. B., Inc., 625 Market St., San Francisco 5, Calif. (Hvy)
 McGuire & Hester, 796 66th Ave., Oakland 3, Calif. (Hvy)
 McKenzie, John R., Rt. 1, Box 562, Fremont Rd., Los Altos, Calif. (H-Hvy)
 Mercer-Fraser Co., 2d & Commercial Sts., Eureka, Calif. (B-H-Hvy-RR)
 Miles & Son, Inc., P. O. Box 859, Hwy. 99, No., Merced, Calif. (H)
 Miller, A. L., 1715 7th St., Sacramento, Calif. (H-Hvy)
 Montgomery, T. M., P. O. Box 311, 985 Lincoln Way, Auburn, Calif. (H)
 Moore, Cecil L., P. O. Box 66, San Leandro, Calif. (H-Hvy)
 Moore, P. J., & Son, P. O. Box 488, West Sacramento, Calif. (H-Hvy)
 Morrison-Knudsen Co., Inc., 74 New Montgomery St., San Francisco 5, Calif. (B-H-Hvy)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

CALIFORNIA—Continued

- Moseman, C. K., 727 Barron Ave., Redwood City, Calif. (Hvy)
- Munn & Perkins, P. O. Box 1092, 801 S. Old 99 Hwy., Modesto, Calif. (H-Hvy)
- Murphy, Michael, Jr., 308 Upper Terr., San Francisco, Calif. (H-Hvy)
- Nash, Glen, 3314 Union St., Eureka, Calif. (Hvy)
- Nissen, J. K., & Sons, 20617 Western Blvd., Hayward, Calif. (Hvy)
- Nomellini Constr. Co., P. O. Box 1177, Stockton, Calif. (B-Hvy)
- Norcal Excavating & Constr. Co., 483 N. San Pedro Rd., San Rafael, Calif. (H-Hvy)
- O'Callahan, Mickey G., 1717 21st Ave., Oakland, Calif. (Hvy)
- O'Connor Bros., P. O. Box 630, 750 Madison St., Red Bluff, Calif. (B-H-Hvy)
- O'Connor, J. D., Constr. Co., Inc., 483 N. San Pedro Rd., San Rafael, Calif. (B-H-Hvy)
- O'Hair, W. H., Co., 11th & Main Sts., P. O. Box 331, Colusa, Calif. (H-Hvy)
- Oliphant, C. F., P. O. Box 250, Hanford, Calif. (H-Hvy)
- Olympian Dredging Co., 525 Market St., San Francisco 5, Calif. (H)
- Owl Truck & Constr. Co., 500 S. Alameda St., Compton, Calif. (H-Hvy)
- P & E Constr. Co., 1082 S. 6th St., San Jose, Calif. (H-Hvy)
- Pacific Bridge Co., 333 Kearney St., San Francisco 8, Calif. (H-Hvy-RR)
- Pacific Pavements Co., Ltd., 85 Barstow St., San Francisco 7, Calif. (H-Hvy)
- Pacific Pipe Welders, 1130 Ygnacio Ave., Walnut Creek, Calif. (Hvy)
- Parish Bros., P. O. Box 6, Benicia, Calif. (H-Hvy)
- Parker, H. Earl, Inc., 531 12th St., Marysville, Calif. (H-Hvy)
- Patterson, Geo. R., P. O. Box 2004, Stockton, Calif. (H-Hvy)
- Peira, U., & Son, 292 Ocean Ave., San Francisco 12, Calif. (H-Hvy)
- Peres, Geo., 120 S. 23rd St., Richmond, Calif. (Hvy)
- Peters, A. J., & Son, P. O. Box 682, 534 Stockton Ave., San Jose, Calif. (Hvy)
- Peterson, C. W., 6856 Vantage Ave., North Hollywood, Calif. (Hvy)
- Peterson, E. H., & Son, 5691 San Pablo Dam Rd., Richmond, Calif. (B-Hvy)
- Petroleum Sales, Div. of Fortier Transp. Co., P. O. Box 431, Fresno, Calif. (Hvy)
- Phoenix Constr. Co., Inc., & Oilfields Trucking Co., P. O. Box 906, Bakersfield, Calif. (Hvy)
- Piazza, Leo F., Paving Co., Rt. 1, Box 800, Downer Ave. near Almaden Rd., San Jose, Calif. (H)
- Pine Flat Contrs., P. O. Box 277, Sanger, Calif. (Hvy)
- Piombo Constr. Co., 1571 Turk St., San Francisco 15, Calif. (H-Hvy)
- Pollock, Geo., Co., P. O. Box 903, Sacramento 5, Calif. (H-Hvy-RR)
- Pomeroy, J. H., & Co., Inc., 333 Montgomery St., San Francisco 4, Calif. (H-Hvy)
- Prepakt Concrete Co., The, 503 Market St., Rm. 807, San Francisco 5, Calif. (Hvy)
- Radtke, Wm., & Son, 40 Martin St., Gilroy, Calif. (B-Hvy)
- Railing, W. C., Woodland, Calif. (H)
- Raisch, A. G., Co., P. O. Box 458, San Rafael, Calif. (H-Hvy)
- Raisch, A. J., Paving Co., 900 W. San Carlos St., San Jose 26, Calif. (H-Hvy)
- Ransome Co., 4030 Hollis St., Emeryville 8, Calif. (H-Hvy)
- Rapp Constr. Co., 705 Bennett Ave., Santa Rosa, Calif. (Hvy)
- Reeves, J. R., P. O. Box 1072, Sacramento 5, Calif. (H)
- Reid, A. R., Co., 2600 Oakdale Ave., San Francisco 24, Calif. (H-Hvy)
- Renz, Geo. C., Box 6, Hecker Pass Hwy., Gilroy, Calif. (B-Hvy)
- Rice Bros., Inc., 8th & Yuba St., P. O. Box 1489, Marysville, Calif. (H-Hvy)
- Richards, Gene, Inc., 165 N. H St., Fresno, Calif. (H-Hvy)
- Robertson, Alex, Co., P. O. Box 138, Walnut Creek, Calif. (H-Hvy)
- Rothschild, Rafin & Weirick, 274 Brannan St., San Francisco, Calif. (B-Hvy)
- Rousseau, Oliver, Constr. Co., 110 Sutter St., San Francisco 4, Calif. (B-Hvy)
- Royse & de Vriend, 5945 Eastern Ave., Sacramento, Calif. (Hvy)
- Ruby, H. W., 2851 Northrup Ave., Sacramento, Calif. (H-Hvy)
- Ruddy, M. J., & Son, Rt. 6, Box 1419 A, Modesto, Calif. (H-Hvy)
- S. A. E. Co., P. O. Box 968, Redwood City, Calif. (H-Hvy)
- S & Q Constr. Co., 48 S. Linden Ave., San Francisco, Calif. (B-H-Hvy)
- San Leandro Constr. Co., 16411 E. 14th St., San Leandro, Calif. (Hvy)
- Schader, A. D., 164 Spear St., San Francisco 5, Calif. (H-Hvy-RR)
- Schwartz, Ted, Glenbrook Park, Grass Valley, Calif. (H-Hvy)
- Sharp & Fellows Contr. Co., 533 Central Bldg., 108 W. 6th St., Los Angeles 14, Calif. (Hvy)
- Sinnock, Pomeroy, 1770 N. Hunter St., Stockton, Calif. (H-Hvy)
- Siri, Arthur B., Inc., 1356 Cleveland Ave., Santa Rosa, Calif. (H)
- Slinsen Constr. Co., P. O. Box 551, Napa, Calif. (H-Hvy)
- Smith, Frank W., Constr. Co., Box 726, San Mateo, Calif. (H-Hvy)
- Smith, Harold, 1725 Main St., St. Helena, Calif. (H-Hvy)
- Smith, L. C., 225 Railroad Ave., San Mateo, Calif. (H-Hvy)
- Smith, O. J., 2330 Lincoln Ave., Richmond, Calif. (H-Hvy)
- Smith, Wm. A., Contr. Co. of California, P. O. Box 1506, Oakland, Calif. (Hvy-RR)
- Solomon, E. J., P. O. Box 576, San Andreas, Calif. (B-Hvy)
- Sondgroth Bros., 318 Sierra Vista Ave., Mountain View, Calif. (H-Hvy)
- Sorensen, Peter, 927 Arguello St., Redwood City, Calif. (B-Hvy)
- Spears Constr. Co., P. O. Box 1124, Modesto, Calif. (B-Hvy)
- Sperry & McCue, 304 El Camino Real, Millbrae, Calif. (H-Hvy)
- Stacy, Geo. R., P. O. Box 457, Tulelake, Calif. (H-Hvy)
- Stahl, Shattuck & Farrell, 2979 A St., Hayward, Calif. (H-Hvy)
- Standard Materials Co., 1411 9th St., Modesto, Calif. (H)
- Standard Structures, Inc., 28 Francisco Blvd., San Rafael, Calif. (H-Hvy)
- Standard Water & Sewage Prods., Inc., Rt. 7, Box 1143, Sacramento, Calif. (Hvy)
- Stephens Trucking Co., 39 E. Pine St., Stockton, Calif. (H-Hvy)
- Stewart & Nuss, Inc., 410 Thorne Ave., P. O. Box 886, Fresno, Calif. (H-Hvy)
- Stockton Constr. Co., Inc., P. O. Box 2087, 639 W. Clay St., Stockton, Calif. (H-Hvy)
- Stolte, Inc., 8451 San Leandro St., Oakland 3, Calif. (B)
- Stone & Webster Engineering Corp., 235 Montgomery St., San Francisco 4, Calif. (B-Hvy)
- Strizek, Jere, 2418 El Paseo Lane, Town & Country Village, Sacramento 15, Calif. (B-Hvy)
- Syar, C. M., P. O. Box 1431, Vallejo, Calif. (H-Hvy)
- Sykes, H., Box 626, Hwy. 33 & C St., Patterson, Calif. (H-Hvy)
- Taaffe, Martin J., Rt. 2, Box 889, Concepcion Ave., Los Altos, Calif. (H-Hvy)
- Tarlton, G. L., Contr. Co., P. O. Box 506, Placerville, Calif. (Hvy)
- Taylor & Mullen, 412 Cedar Ave., North Sacramento, Calif. (B-Hvy)
- Teichert, A., & Son, Inc., 1931 Stockton Blvd., P. O. Box 928, Sacramento 4, Calif. (H-Hvy-RR)
- Thomas, B. Miles, Co., 436 Pacheco St., San Francisco 16, Calif. (H-Hvy)
- Thomas Constr. Co., 4929 Hedges Ave., Fresno 2, Calif. (Hvy)
- Thomas, G. W., Drayage & Rigging Co., Inc., 114 14th St., San Francisco 3, Calif. (Hvy)
- Thomas Rigging Co., 1505 62d St., Emeryville 8, Calif. (Hvy)
- Till, Archie L., P. O. Box 346, Yuba City, Calif. (H-Hvy)
- Tobin, Edwin J., Co., 1000 Carleton St., Berkeley 2, Calif. (Hvy)
- Transocean Engr. Corp., 7807-11 Russell City Rd., Hayward, Calif. (Hvy)
- Triangle Constr. Co., 2440 Sutterville Rd., Sacramento, Calif. (B-Hvy)
- Tricon Constr. Corp., P. O. Box 569, San Rafael, Calif. (H-Hvy)
- Trisdale, J. H., Inc., P. O. Box 779, Redding, Calif. (Hvy)
- Tyrell, Wm. L., 2915 "P" St., Eureka, Calif. (Hvy)
- Ukropina-Polich-Kral, P. O. Box 105, San Gabriel, Calif. (Hvy)
- Underground Constr. Co., 75th Ave. at San Leandro Blvd., Oakland 3, Calif. (Hvy)
- United Concrete Pipe Corp., Box 425, Baldwin Park, Calif. (H-Hvy)
- Utah Construction Co., 1 Montgomery St., San Francisco 4, Calif. (B-H-Hvy-RR)
- Valley Trenching Co., Hwy. 99, South, Fresno, Calif. (Hvy)
- Van Valkenburgh, N. P., & Co., P. O. Box 1192, Sacramento, Calif. (B-H-Hvy)

A.G.C. DIRECTORY

CALIFORNIA—Continued

Vega Engr. & Grading Co., 1214 4th St., Berkeley 10, Calif. (H-Hvy)
 Vicini, Joe, P. O. Box 206, Placerville, Calif. (H-Hvy)
 Vinnell Co., Inc., 1145 Westminster Ave., Alhambra, Calif. (B-H-Hvy)
 Volpa Bros., 233 Nielsen Ave., Fresno, Calif. (H-Hvy)
 Walsh Construction Company, 785 Market St., San Francisco 3, Calif. (Hvy)
 Weidmer, Victor, P. O. Box 532, Penryn, Placer County, Calif. (H)
 Western Contracting Corporation, 400 Benson Bldg., Sioux City 15, Iowa (H-Hvy)
 Western Crane Service, 1230 6th St., Berkeley 10, Calif. (H-Hvy)
 Wills, F., R. F. D. Box 38, Oakley Hwy., Antioch, Calif. (H-Hvy)
 Winston Bros. Co., & Al Johnson Constr. Co., P. O. Box 1885, Sacramento, Calif. (Hvy)
 Wood, Claude C., Co., Box 599, Lodi, Calif. (B-H-Hvy-RR)
 Wood, Clyde W., & Sons, Inc., 6900 Tujunga Ave., P. O. Box 620, North Hollywood, Calif. (B-H-Hvy)
 Young, W. M., 270 Whittier Ave., Tracy, Calif. (H-Hvy)
 Youngs, Claude L., Rt. 6, Box 2150, Antelope Rd., Sacramento, Calif. (H-Hvy)

(c) SAN DIEGO CHAPTER

President—Robert M. Golden, M. H. Golden Constr. Co., 3485 Noell St., San Diego 1, Calif.
Manager—M. A. Mathias, 455-6 Spreckels Bldg., San Diego 1, Calif.
Telephone: Franklin 1321

Anderson, L. C., Co., 3040 Hancock St., San Diego 10, Calif. (B)
 Barber, Walter H., 7309 El Cajon Ave., La Mesa, Calif. (Hvy)
 Butterfield, L. B., 1211 S. 32d St., San Diego 13, Calif. (Hvy)
 Carpenter, O. L., 8095 Imperial Ave., P. O. Box 206, Lemon Grove, Calif. (B)
 Chambers Steel Co., 2077 Kurtz St., San Diego 1, Calif. (B-Hvy)
 Cory & Longworth, Inc., 1975 5th Ave., San Diego 1, Calif. (B)
 Cotton Constr. Co., P. O. Box 805, Foot of G St., Chula Vista, Calif. (B)
 Curry, I. C., 1701 B St., San Diego 2, Calif. (B)
 Daley Corp., Lock Box 67, N. Park Sta., San Diego 4, Calif. (H-Hvy)
 Dennis, V. R., Constr. Co., P. O. Box F, Hillcrest Sta., San Diego 3, Calif. (H-Hvy)
 Ford, E. Paul, 5050 Market St., San Diego 5, Calif. (H-Hvy)
 Godwin, John, 2285 Newton Ave., San Diego 13, Calif. (Hvy)
 Golden, M. H., Constr. Co., 3485 Noell St., San Diego 1, Calif. (B-Hvy)
 Griffith Co., P. O. Box G, Hillcrest Sta., San Diego 3, Calif. (B-H-Hvy)
 Grove, Cecil B., 3216 Island Ave., San Diego 2, Calif. (H)

Hansen, John, 1489 Island Ave., San Diego 2, Calif. (Hvy)
 Harris, Sim J., Co., 1691 Hancock, San Diego 1, Calif. (H-Hvy)
 Hazard, R. E., Contr. Co., P. O. Box 1951, San Diego 12, Calif. (H-Hvy)
 Hortie, R. J., 2627 Boston Ave., San Diego 13, Calif. (B)
 Kier, W. E., Constr. Co., 461 Spreckels Bldg., San Diego 1, Calif. (B-H-Hvy)
 Larsen, B. O., 1340 E St., San Diego 2, Calif. (B)
 Larsen, C. A., 2057 Kurtz St., San Diego 1, Calif. (B)
 National Steel & Shipbuilding Corp., Harbor Dr. at 28th St., P. O. Box 2072, San Diego 12, Calif. (B-Hvy)
 Nelson, W. F., Co., 1249 S. 32d St., San Diego 13, Calif. (Hvy)
 Nielsen Constr. Co., P. O. Box 1577, Old San Diego Sta., San Diego 10, Calif. (B-Hvy)
 Riha Constr. Co., 8150 Center St., La Mesa, Calif. (B)
 Tavares Constr. Co., P. O. Box 569, La Jolla, Calif. (B-Hvy)
 Trepte Constr. Co., 2001 Kettner Blvd., San Diego 1, Calif. (B-Hvy)
 Von Gunden, C. F., 3105 Congress St., San Diego 10, Calif. (B)
 Young, F. E., Constr. Co., 2141 Main St., San Diego 13, Calif. (B-Hvy)

(d) SOUTHERN CALIFORNIA CHAPTER

President—Spencer Webb, Webb & White, 7220½ Melrose Ave., Los Angeles 46, Calif.
Manager—W. D. Shaw, 707 Architects Bldg., 816 W. 5th St., Los Angeles 17, Calif.
Telephone: Madison 1381

ABC Constr. Co., Inc., 12420 S. Bloomfield Ave., Norwalk, Calif. (Hvy)
 Akmadzich, P. J., Box 8, Sunland, Calif. (H)
 Al-Co Co., 5423 Flemish Village Lane, Los Angeles 27, Calif. (Hvy)
 Aldous & Co., 2006 S. La Cienega Blvd., Los Angeles 34, Calif. (B-Hvy)
 Alliance Constr. Co., 308 Monterey Rd., South Pasadena, Calif. (B)
 Amercon Corp., 2306 W. Slauson Ave., Los Angeles 43, Calif. (B)
 American Asphalt Paving Co., 1010 S. Shamrock Ave., Monrovia, Calif. (B-Hvy)
 Anseo Constr. Co., Inc., 2725 Atlantic Ave., Long Beach 6, Calif. (B-H-Hvy)
 Argo Engr. Co., 1117 Westminster Ave., Alhambra, Calif. (H-Hvy)
 Artukovich, Jerry, 723 Union St., Montebello, Calif. (Hvy)
 Artukovich, John A., Sons, Inc., 16200 S. Atlantic Ave., Paramount, Calif. (H-Hvy)
 Artukovich, N. A., Constr. Co., 723 Union St., Montebello, Calif. (Hvy)
 Artukovich, Vido, Co., 1140 Singingwood Dr., Arcadia, Calif. (H-Hvy)
 Ashby & Opperman, P. O. Box 127, Bakersfield, Calif. (B)
 Asphalt Paving Materials Co., 2120 Colorado Blvd., Rm. 2, Los Angeles 41, Calif. (H)

Atkinson, Guy F., Co., P. O. Box 259, Long Beach 1, Calif. (B-H-Hvy)
 Baer, Paul M., & Son, P. O. Box 65, Bell Gardens, Calif. (B)
 Baker-Mitchell-Thwing Co., P. O. Box 2098, San Bernardino, Calif. (Hvy)
 Ball & Simpson, 685 Delaware St., Berkeley 10, Calif. (H)
 Ball, Stanley, 1101 Westminster Ave., Alhambra, Calif. (H)
 Barnes, Jas. I., Constr. Co., P. O. Box 799, Santa Monica, Calif. (B)
 Barnes, W. M., Co., 727 W. 7th St., Rm. 355, Los Angeles 17, Calif. (B-Hvy)
 Barrett, J. S., 1300 Coast Hwy., Newport Beach, Calif. (Hvy)
 Baruch Corp., P. O. Box 11488, Briggs Sta., Los Angeles 48, Calif. (B-Hvy)
 Basich Bros. Constr. Co., 1148 N. San Gabriel Blvd., Garvey, Calif. (H-Hvy)
 Bechtel Corp., 3780 Wilshire Blvd., Los Angeles 5, Calif. (B-H-Hvy)
 Beggs, W. C., 2122 Berkeley Ave., Los Angeles 26, Calif. (B)
 Beyer & Abrahamson, 315 W. 9th St., Los Angeles 15, Calif. (B)
 Blakemore, John F., 1704 N. Rosemead Blvd., El Monte, Calif. (H-Hvy)
 Blaw-Knox Co., Chemical Plants Div., P. O. Box 778, Pittsburgh 30, Pa. (B-Hvy)
 Bock Co., 1120 N. Las Palmas Ave., Los Angeles 38, Calif. (H-Hvy)
 Boespflug, J. C., Constr. Co., 605 S. Lucas Ave., Los Angeles 17, Calif. (B-Hvy)
 Bong, Clifford C., & Co., 123 N. 3d Ave., Arcadia, Calif. (H-Hvy)
 Braun, C. F., & Co., 1000 S. Fremont Ave., Alhambra, Calif. (Hvy)
 Bressi & Bevanda Constrs., Inc., P. O. Box 439, North Hollywood, Calif. (H-Hvy)
 Brock, M. J., & Sons, Inc., 2894 Rowena Ave., Los Angeles 39, Calif. (B-Hvy)
 Brown, Chas. T., Co., 1955 6th St., San Fernando, Calif. (H-Hvy)
 Burke & Reynolds Constr. Co., 1227 N. Avalon, P. O. Box 635, Wilmington, Calif. (B)
 Butterfield, C. R., Co., 1401 N. Gaffey St., San Pedro, Calif. (H-Hvy)
 Buttress & McClellan, Inc., 1900 Beverly Blvd., Los Angeles 4, Calif. (B-H-Hvy)
 Cahill Bros., Inc., 350 Sansome St., San Francisco 4, Calif. (B-Hvy)
 California Steel & Constr. Co., 3833 E. Medford St., Los Angeles 63, Calif. (B)
 Campbell Constr. Co., 228 E. Transit St., Ontario, Calif. (B)
 Cannell, E. W., 14181 S. Halldale Ave., Gardena, Calif. (Hvy)
 Carter, Geo. W., Co., 1721 W. Olympic Blvd., FOY P. O. Box 17155, Los Angeles 17, Calif. (B)
 Case, F. W., Co., 926 Lyons St., Newhall, Calif. (H-Hvy)
 Casey, Geo. F., Co., 7222 E. Slauson Ave., Los Angeles 22, Calif. (H-Hvy)
 Chadwick & Buchanan, 433 34th St., Manhattan Beach, Calif. (H-Hvy)
 Christensen & Lyons, 4244 Santa Ana St., South Gate, Calif. (B)
 Christie Co., 23 Santa Clara St., Arcadia, Calif. (B-Hvy)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

CALIFORNIA—Continued

- Concrete Conduit Co., 899 S. La Cadena Ave., P. O. Box 1257, Lindsay, Calif. (Hvy)
- Connolly-Pacific Co., 1925 W. Water St., Long Beach 2, Calif. (H-Hvy)
- Contracting Engrs. Co., The, 2310½ W. Vernon Ave., Los Angeles 43, Calif. (B-H-Hvy)
- Cook, S. J., & Son, 2013 Placentia Ave., Costa Mesa, Orange County, Calif. (B-H-Hvy)
- Crow, L. A. & R. S., 2226 N. Rosemead Blvd., El Monte, Calif. (H-Hvy)
- Crowell, Wm. C., Co., 170 E. California St., Pasadena 5, Calif. (B)
- Cummings, S. A., 821 W. Rosecrans Ave., Compton, Calif. (H-Hvy)
- Cummins, J. F., 245 E. Olive Ave., Burbank, Calif. (B)
- Daum, R. J., Constr. Co., 6803 West Blvd., Inglewood, Calif. (B)
- Davies, John R., & Son, 3312 Long Beach Ave., Los Angeles 58, Calif. (Hvy)
- Davies, Keusder & Brown, 4915 Exposition Blvd., Los Angeles 16, Calif. (B)
- Day, Ralph C., P. O. Box 833, Arcadia, Calif. (B)
- Deane, B. C., & Gunther & Shirley Co., 5536 Sepulveda Blvd., Van Nuys, Calif. (B)
- Devon Constr. Co., 729 N. Highland Ave., Los Angeles, Calif. (B)
- Dimmitt & Taylor, 128 W. Pomona Ave., Monrovia, Calif. (H-Hvy)
- Dixon, L. E., Co., 409 S. California St., San Gabriel, Calif. (B-H-Hvy)
- Doty Bros., 9936 E. Ramona Ave., Bellflower, Calif. (Hvy)
- Driver, C. W., Inc., 3416½ W. 1st St., Los Angeles 4, Calif. (B)
- Dunn, Louis C., Inc., 3101 Wilshire Blvd., Los Angeles 5, Calif. (B-Hvy)
- Early, Fred J., Jr. Co., Inc., P. O. Box 114, Torrance, Calif. (B-Hvy)
- Ehrhart & Arthur, Inc., 417 S. Hill St., Rm. 920, Los Angeles 13, Calif. (Hvy)
- Ellis, G. W., Constr. Co., 8240 Lankershim Blvd., North Hollywood, Calif. (H)
- El Rio Rock Co., P. O. Box 548, Ventura, Calif. (H)
- Emco Concrete Cutting Co. of Los Angeles, 2751 E. 11th St., Los Angeles 23, Calif. (Hvy)
- Emtman, Eric W., 3825 Vine St., Riverside, Calif. (B-Hvy)
- Encon Corp., 718 E. 16th St., Los Angeles 21, Calif. (B-Hvy)
- Engineering Constrs., Inc., P. O. Box 3428, Terminal Annex, Los Angeles 54, Calif. (Hvy)
- Engineers, Ltd., 605 W. Olympic Blvd., Standard Oil Bldg., Los Angeles 14, Calif. (B)
- Engineers Ltd. Mechanical Constr. Co., 714 W. Olympic Blvd., Los Angeles, Calif. (Hvy)
- Engineers Ltd. Pipeline Co., 12714 Inglewood Ave., Hawthorne, Calif. (Hvy)
- Escherich Bros., Inc., 645 S. Ave. 21, Los Angeles 31, Calif. (B)
- Fadel, Norman I., Box 206, North Hollywood, Calif. (H-Hvy)
- Famularo, A. H., P. O. Box 239, Santa Ana, Calif. (B-H-Hvy)
- Ferry, Peter L., & Son, 5201 N. San Fernando Rd., Glendale 3, Calif. (Hvy)
- Fisher, Claude, Co., Ltd., 2455 E. 55th St., Los Angeles 58, Calif. (H)
- Fluor Corp., Ltd., The, 2500 S. Atlantic Blvd., Los Angeles 22, Calif. (B-Hvy)
- Foster & McHarg, 3680 6th St., P. O. Box 272, Riverside, Calif. (H-Hvy)
- Fuller, George A., Company, 3100 W. 8th St., Los Angeles 5, Calif. (B-H-Hvy)
- Garnier Constr. Co., 16340 E. Maplegrove St., Puente, Calif. (Hvy)
- Gerwick, Ben C., Inc., 112 Market St., San Francisco 11, Calif. (B-H-Hvy)
- Gill Constr. Co., 2931 Pierce Rd., Bakersfield, Calif. (H)
- Goode & Schroeder, Inc., 3033 Treadwell St., Los Angeles 41, Calif. (H-Hvy)
- Gould & Cross, Box 427, Wilmington, Calif. (H)
- Grandy, E. F., P. O. Box 401, Laguna Beach, Calif. (B-Hvy)
- Granite Constr. Co., P. O. Box 900, Watsonville, Calif. (B-H-Hvy)
- Green, Edw., Co., 3001 Coolidge Ave., Los Angeles 26, Calif. (H-Hvy)
- Greenwood, Hal, Inc., 1735 Seabright Ave., Long Beach 13, Calif. (Hvy)
- Gridley Constr. Co., P. O. Box 649, Oxnard, Calif. (B-Hvy)
- Griffith Co., 1060 S. Broadway, Los Angeles 15, Calif. (B-H-Hvy)
- Gunn Constr. Co., 2903 Beverly Blvd., Los Angeles 4, Calif. (B)
- Gunther & Shirley Co., P. O. Box 1037, Sherman Oaks, Calif. (H-Hvy)
- Haas, E. T., Co., P. O. Box 6969, East Los Angeles 22, Calif. (Hvy)
- Haddock Engrs., Ltd., 1616 S. Greenwood Ave., P. O. Box 390, Montebello, Calif. (B-H-Hvy)
- Haddock, J. E., Ltd., P. O. Box 188E, Pasadena 8, Calif. (H-Hvy)
- Hahn-St. John, 219 N. Hawthorne Blvd., Hawthorne, Calif. (B)
- Hall, Guy E., P. O. Box 1723, Bakersfield, Calif. (B-H-Hvy)
- Hall, W. E., Constr. Co., Box 470, Alhambra, Calif. (H-Hvy)
- Halper Constr. Corp., 739 N. Highland Ave., Los Angeles 38, Calif. (B)
- Halvorson Contrs., Box 307, Goleta, Calif. (B-H-Hvy)
- Harvey Constr. Co., 2065 N. Peck Rd., El Monte, Calif. (H)
- Harvey & Rose, 11 N. 5th Ave., Arcadia, Calif. (B-H-Hvy)
- Hasler, M. H., Constr. Co., P. O. Box 387, Santa Ana, Calif. (H-Hvy)
- Hawley, Lester S., 325 N. 5th St., Montebello, Calif. (H)
- Heisler & Woods, 229 S. Hoyt Ave., El Monte, Calif. (H-Hvy)
- Hensler, R. R., 7550 Wheatland Ave., Sun Valley, Calif. (H)
- Hermco Constr. Co., 407 Commercial Center St., Beverly Hills, Calif. (B-Hvy)
- Hermreck & Easter, P. O. Box 147, Santa Maria, Calif. (H)
- Hess Constr. Co., Inc., 2303 E. Artesia St., Long Beach 5, Calif. (H)
- Hickey, Frank T., Inc., 3539 Temple St., Los Angeles 4, Calif. (H-Hvy)
- Hoagland-Findlay Engr. Co., 3254 Cherry Ave., Long Beach 7, Calif. (B-Hvy)
- Hogan Co., The, 3400 Arlington Ave., Riverside, Calif. (B-H-Hvy)
- Honer, Allison, Co., P. O. Box 84, Santa Ana, Calif. (B)
- Hood Constr. Corp., 3002 E. Century Blvd., Lynwood, Calif. (Hvy)
- Industrial Engrs., Inc., 817 E. 59th St., Los Angeles 1, Calif. (B-Hvy)
- Irish, E. A., 2944 Gleneden St., Los Angeles 26, Calif. (Hvy)
- Izzi, Michael, 4819 N. Arden Dr., Temple City, Calif. (B-H-Hvy)
- J. & B. Constr. Co., 5572 Valley Blvd., Los Angeles 32, Calif. (B)
- Jamison, E. J., 1749-1761 E. 21 St., Los Angeles 58, Calif. (B-Hvy)
- Jarrett, Watson E., 1642 Midwick Dr., Altadena, Calif. (H)
- Johnson, J. Walter, 5205 Hollywood Blvd., Los Angeles 27, Calif. (B-Hvy)
- Johnson Western Constrs., P. O. Box 6, San Pedro, Calif. (B-Hvy)
- Jones Bros., 147 San Vicente Blvd., Beverly Hills, Calif. (B)
- Kaiser, E. A., Co., Inc., 8825 Olympic Blvd., Beverly Hills, Calif. (B)
- Kaiser Engrs., Div. of Henry J. Kaiser Co., P. O. Box 157, Fontana, Calif. (B-H-Hvy)
- Kaucher, Walter, 9880 W. Pico Blvd., Los Angeles 35, Calif. (B-H-Hvy)
- Kellogg, M. W., Co., The, 225 Broadway, New York 7, N. Y. (B-Hvy)
- Kemp Bros., 8750 Mettler St., Los Angeles 3, Calif. (B-Hvy)
- Kemper Constr. Co., 3701 Overland Ave., Los Angeles 34, Calif. (H-Hvy)
- Kerns, G. E., 5574 Atlantic Ave., Long Beach 5, Calif. (H-Hvy)
- Kier, W. E., Constr. Co., 2323 E. Rosecrans, P. O. Box 147, El Segundo, Calif. (B-Hvy)
- Kiewit, Peter, Sons' Co., 345 Kieways Ave., Arcadia, Calif. (B-H-Hvy)
- Kirst Constr. Co., 836 W. Atlanta St., Altadena, Calif. (H)
- Klarquist, John A., 618 S. Western Ave., Los Angeles 5, Calif. (B)
- Kleinsmid Constr. Co., Inc., P. O. Box 971, Bakersfield, Calif. (H)
- L. A. Paving Co., 3700 S. Soto St., Los Angeles 11, Calif. (H)
- Lane, Richard M., 4719 Exposition Blvd., Los Angeles 16, Calif. (B)
- Lee & Neal, 315 Laguna, Santa Barbara, Calif. (Hvy)
- Libby, Donald V., 2112 N. Rosemead Blvd., El Monte, Calif. (B)
- Liberty Bldg. Co., P. O. Box 25, Pomona, Calif. (B)
- Lindgren & Swinerton, Inc., 605 W. Olympic Blvd., Los Angeles 15, Calif. (B-H-Hvy)
- Livingston Truck & Material Co., 3366 Cherry Ave., Long Beach 7, Calif. (Hvy)
- Lorber, Melvin, 8814 Burton Way, Beverly Hills, Calif. (B)
- Losch, E. C., Co., Box 195, Paramount, Calif. (Hvy)
- Lyles, W. M., Co., P. O. Box 495, Avenal, Calif. (Hvy)
- M. J. B. Constr. Co., 322 Elks Bldg., Stockton 1, Calif. (H)

CALIFORNIA—Continued

M & K Corp., Frederickson & Watson Constr. Co., & Piombo Constr. Co., 405 Montgomery St., San Francisco 4, Calif. (B-H-Hvy)
 MacClosky, Chas., Co., 808 S. Vermont Ave., Los Angeles, Calif. (H-Hvy)
 Macco Corp., 14409 S. Paramount Blvd., Paramount, Calif. (H-Hvy)
 MacDonald & Kruse, P. O. Box 306, Sun Valley, Calif. (B-H-Hvy)
 MacDonald, Young & Nelson, Inc., 351 California St., San Francisco 4, Calif. (B-H-Hvy)
 MacIsaac & Menke Co., 3440 E. 14th St., Los Angeles 23, Calif. (B-Hvy)
 Madonna Constr. Co., P. O. Box 910, San Luis Obispo, Calif. (H-Hvy)
 Maguire, J. C., & Co., Architects Bldg., Los Angeles 17, Calif. (Hvy)
 Malven & Nicklas, 341½ N. LaBrea Ave., Los Angeles 36, Calif. (B)
 Martin, Guy T., & Co., 642 E. Olive St., P. O. Box 432, Gardena, Calif. (B-Hvy)
 Martin, Vic, 1074 S. Arroyo Pkwy., Pasadena 2, Calif. (B-H-Hvy)
 Matich Bros. Paving Co., P. O. Box 390, Colton, Calif. (H-Hvy)
 Maxwell, W. F., 634 S. Western Ave., Los Angeles 5, Calif. (H-Hvy)
 McElvany, J. L., P. O. Box 261, El Centro, Calif. (H-Hvy)
 McGinnis & Gautier, Inc., 11925 Vose St., North Hollywood, Calif. (H)
 McKee, Robt. E., Gen. Contr., Inc., P. O. Box 350, Glendale 26, Calif. (B-H-Hvy)
 McKittrick, E. S., Co., Inc., P. O. Box 470, Huntington Park, Calif. (B-Hvy)
 McNeil, J. A., Co., 3115 W. Mission Rd., Alhambra, Calif. (B)
 Meadow Constr. Co., P. O. Box 1428, Bakersfield, Calif. (H-Hvy)
 Mecham, M. S., & Sons, 11125 Garfield Ave., South Gate, Calif. (H)
 Meek, John L., 8540 Venice Blvd., Los Angeles 34, Calif. (B-Hvy)
 Meredith & Simpson, P. O. Box 788, Thermal, Calif. (H)
 Meredith, Trent, 2860 Saviers Rd., Oxnard, Calif. (B-H-Hvy)
 Merrill, Ted F., & Sons, 911 E. Redondo Blvd., Inglewood, Calif. (B)
 Miller & Miller, 5941 W. Venice Blvd., Los Angeles 34, Calif. (B-Hvy)
 Mitty Constrs., 4801 San Fernando Rd., Los Angeles 39, Calif. (H-Hvy)
 Modern Bldrs. Constr. Co., Inc., 2812 Long Beach Blvd., Long Beach 6, Calif. (B-H-Hvy)
 Montank & Son, 5142 Onacrest Dr., Los Angeles 43, Calif. (H)
 Montgomery, J. M., & Co., Inc., 900 S. Robertson Blvd., Los Angeles 35, Calif. (B-Hvy)
 Moore, Mehren & Bailey, P. O. Box 1169, Madera, Calif. (H)
 Moran, Wm. J., Co., 1011 S. Fremont Ave., Alhambra, Calif. (B-H-Hvy)
 Morrison-Knudsen Co., Inc., 411 W. 5th St., Los Angeles 13, Calif. (B-H-Hvy)

Myers Bros., 3407 San Fernando Rd., Los Angeles 65, Calif. (B-H-Hvy)
 Nappe Constr. Co., Inc., 11601 Cantara St., North Hollywood, Calif. (H-Hvy)
 Newbery Elec. Corp., 1038 Venice Blvd., Los Angeles 15, Calif. (Hvy)
 Nichols, Harvey A., 926 E. Slauson Ave., Los Angeles 11, Calif. (B)
 Nicholson, H. B., 880 E. Colorado St., Pasadena 1, Calif. (B-Hvy)
 Noble, R. J., Co., P. O. Box 620, Orange, Calif. (H)
 Normac, Inc., P. O. Box 470, Huntington Park, Calif. (B)
 Nottingham, M. C., Co., 5933 N. Cloverly Ave., Temple City, Calif. (Hvy)
 Oberg Bros. Constr. Co., Box 640, Inglewood, Calif. (H-Hvy)
 Oberg, Lars, 4982 Valley Ridge Ave., Los Angeles 43, Calif. (H)
 Ofcco Constr. Co., Inc., 2650 Cherry Ave., Long Beach 6, Calif. (B-Hvy)
 Olerich, Walter F., 8116 W. 3d St., Los Angeles 48, Calif. (B-H-Hvy)
 Olson, F., 1937 W. Florence Ave., Los Angeles 44, Calif. (B)
 Osborn Co., 3200 Edgecliff Lane, Pasadena 8, Calif. (H)
 Oswald Bros., 366 E. 58th St., Los Angeles 11, Calif. (H)
 Owl Truck & Constr. Co., 500 S. Alameda St., P. O. Box 509, Compton, Calif. (H-Hvy)
 Pacific Allied, 245 E. Olive, Burbank, Calif. (B-H)
 Pacific Contr. Corp., P. O. Box 72, Newport Beach, Calif. (B-H-Hvy)
 Pacific Crane & Rigging Co., 6800 S. Alameda, Los Angeles 1, Calif. (H-Hvy)
 Pacific Pipeline Constr. Co., 1632 S. Greenwood Ave., Montebello, Calif. (Hvy)
 Page Corp. & T. M. Page, 145 W. Duarte Rd., Monrovia, Calif. (H-Hvy)
 Parkhill-Wade, Box 6877, E. Los Angeles Br., Los Angeles 22, Calif. (B-Hvy)
 Parsons, Ralph M., Co., The, 617 S. Olive St., Los Angeles 14, Calif. (B-H-Hvy)
 Pavement Planing Co., 3444 San Fernando Rd., Los Angeles 65, Calif. (H)
 Payne, G. J., Co., Inc., 6810 Crenshaw Blvd., Los Angeles 43, Calif. (H-Hvy)
 Payton, J. A., P. O. Box 207, Riverside, Calif. (H)
 Peceel, B., & Sons, 11751 Vose St., North Hollywood, Calif. (Hvy)
 Peck, C. L., 407 Architects Bldg., 816 W. 5th St., Los Angeles 17, Calif. (B)
 Peterson & Baker, 6170½ Santa Monica Blvd., Los Angeles 38, Calif. (B-H)
 Phoenix Constr. Co., Inc., P. O. Box 906, Bakersfield, Calif. (H)
 Pipe Line Constrs., P. O. Box 97, Bakersfield, Calif. (H)
 Plunkett, North H., & Co., 2909 Junipero Ave., Long Beach, Calif. (H-Hvy)
 Pollock, Geo., Co., Box 903, Sacramento 5, Calif. (B-H-Hvy)
 Pozzo Constr. Co., Ltd., 2403 Riverside Dr., Los Angeles 39, Calif. (B)
 Price, Vido S., & Glenn Graham, 2901 Worthen Ave., Los Angeles 39, Calif. (H)
 Price, R. M., Co., 2285 Pine Crest Dr., Altadena, Calif. (H-Hvy)

Pugh Constr. Corp., 1525 N. Gaffey St., San Pedro, Calif. (B-H-Hvy)
 Quinn & Conant, 8474 W. 3d St., Los Angeles 36, Calif. (B)
 Radich & Fergusson, Inc., 3000 Empire Ave., Burbank, Calif. (H-Hvy)
 Radkovich, Wm., Co., 4920 E. Washington, Los Angeles 22, Calif. (H-Hvy)
 Rados, Steve P., 2975 San Fernando Rd., Los Angeles 65, Calif. (H-Hvy)
 Ramljak, M., 3001 Worthen Ave., Los Angeles 26, Calif. (Hvy)
 Rexroth & Rexroth, P. O. Box 1138, Bakersfield, Calif. (H)
 Reynolds, Roland T., Rt. 4, 8751 Sunkist, Anaheim, Calif. (H-Hvy)
 Rhoades Shofner Constr. Co., Inc., 727 W. 7 St., Suite 600, Los Angeles 17, Calif. (H-Hvy)
 Riley, J. E., & Son, 12084 E. Westminster Ave., Santa Ana, Calif. (H-Hvy)
 Robertson, Alex, Co., 14433 S. Paramount Blvd., Paramount, Calif. (Hvy)
 Robertson, W. E., 4015 W. Jefferson Blvd., Los Angeles 16, Calif. (B-H)
 Robinson & Wilson, 179 4th St., P. O. Box 109, San Bernardino, Calif. (B)
 Rounds, Chas. J., 4529 Alger St., Los Angeles 26, Calif. (H)
 S. E. Pipeline Constr. Co., 13736 Mulberry Dr., Whittier, Calif. (Hvy)
 Saliba, N. M., Co., P. O. Box 1673, Wilshire-LaBrea Sta., Los Angeles 36, Calif. (B-H-Hvy)
 Santa Barbara Crane Service, P. O. Box 92, Santa Barbara, Calif. (Hvy)
 Schader, A. D., Co., 164 Spear St., San Francisco, Calif. (H-Hvy)
 Schroeder & Co., Inc., 8140 Tujunga, Box 308, Sun Valley, Calif. (H-Hvy)
 Senness Corp., 635½ N. La Cienega, Los Angeles 46, Calif. (B)
 Sharp & Fellows Constr. Co., 533 Central Bldg., Los Angeles 14, Calif. (B-H-Hvy)
 Shaw, Donald F., 1901 Blake Ave., Los Angeles 26, Calif. (B)
 Shea Co., The, 2801 W. Mission Rd., Alhambra, Calif. (Hvy)
 Sheets Constr. Co., 201 E. Victoria St., Gardena, Calif. (H)
 Silva & Hill Constr. Co., 5575 Valley Blvd., Los Angeles 32, Calif. (H)
 Simpson, Wm., Constr. Co., The, 816 W. 5th St., Los Angeles 17, Calif. (B-Hvy)
 Smale & Robinson, Inc., 1033 Avalon Blvd., Wilmington, Calif. (B-Hvy)
 Smith, Ben F., Co., 333 S. Rosemead Blvd., Pasadena 8, Calif. (B-Hvy)
 Smith-Campbell Co., 6510 Cherry Ave., Long Beach 5, Calif. (B)
 Smith, H. C., Co., 718 E. 16th St., Los Angeles 21, Calif. (B-H-Hvy)
 Southwest Paving Co., P. O. Box 338, Sun Valley, Calif. (H)
 Southwestern Engr. Co., 4800 Santa Fe Ave., Los Angeles 58, Calif. (B-Hvy)
 Sparks, C. O., & Mundo Engr. Co., Inc., 2727 E. Washington Blvd., Los Angeles 23, Calif. (H-Hvy)
 Speer, Paul W., Inc., 3425 Cahuenga Blvd., Los Angeles 28, Calif. (B)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

CALIFORNIA—Continued

Spencer, Paul, 151 N. Acacia, San Dimas, Calif. (B)
 Spicer Co., P. O. Box 8383, W. Adams Sta., Los Angeles 16, Calif. (H-Hvy)
 Standard Dredg. Corp., 800 Central Bldg., Los Angeles 14, Calif. (Hvy)
 Stanton-Reed Co., 816 W. 5th St., Los Angeles 17, Calif. (B)
 State Constr. Co., 3248 Long Beach Ave., Los Angeles 11, Calif. (Hvy)
 Steed Bros., Box 350, Alhambra, Calif. (B)
 Stolte, Inc., 8451 San Leandro St., Oakland 3, Calif. (B-H-Hvy)
 Stone & Webster Engineering Corp., Edison Bldg., Los Angeles 17, Calif. (Hvy)
 Subgrade Engr. Corp., P. O. Box 631, Bell, Calif. (H-Hvy)
 Sugarman-Moore Co., 642 S. Western Ave., Los Angeles 5, Calif. (B-Hvy)
 Sully-Miller Contr. Co., 1500 W. 7th St., Long Beach 6, Calif. (H)
 Summerbell Roof Structures, 825 E. 29th St., Los Angeles 11, Calif. (B-H)
 Swigart, John J., Co., Box 710, Orange, Calif. (H-Hvy)
 T-S Constr. Engrs., Inc., 600 St. Paul Ave., Los Angeles 17, Calif. (B)
 Teichert, A., & Son, Inc., 1931 Stockton Blvd., P. O. Box 928, Sacramento 4, Calif. (H-Hvy-RR)
 Thompson, E. S., 832 W. 5th St., Los Angeles 17, Calif. (B)
 Thompson, J. A., & Son, P. O. Box 518, Inglewood, Calif. (B-H-Hvy)
 Tibbitts, Healy, Constr. Co., 411 Brannan St., San Francisco, Calif. (H-Hvy)
 Tomei Constr. Co., 4737 Orion St., Van Nuys, Calif. (H-Hvy)
 Triangle Rock & Gravel Co., P. O. Box 2098, Uptown Sta., San Bernardino, Calif. (H-Hvy)
 Trousdale Constr. Co., 650 N. Sepulveda Blvd., Los Angeles 24, Calif. (B)
 Tuttle, C. B., 268 Belmont Ave., Long Beach 3, Calif. (H)
 Twaits, Ford J., Co., 449 S. Beaudry St., Los Angeles 17, Calif. (B-H-Hvy)
 Ukropina-Polich-Kral, P. O. Box 105, San Gabriel, Calif. (H-Hvy)
 United Concrete Pipe Corp., Box 425, Baldwin Park, Calif. (H-Hvy)
 United Construction Co., Pier E, Terminal Island, P. O. Box 1887, Long Beach, Calif. (B-Hvy)
 United States Constr. Corp., 111 E. Chartres St., Anaheim, Calif. (B-H)
 Utah Construction Co., 1 Montgomery St., San Francisco 4, Calif. (B-H-Hvy)
 Utility Constr. Co., 9830 Atlantic Blvd., South Gate, Calif. (Hvy)
 Valley Paving & Constr. Co., Inc., P. O. Box 6, Pismo Beach, Calif. (H-Hvy)
 Van Valkenburgh, N. P., 8609 San Vincente Ave., South Gate, Calif. (Hvy)
 Vernon Paving Co., Inc., 3200 E. Vernon Ave., Los Angeles 58, Calif. (H)
 Vinnell Co., Inc., 1145 Westminster Ave., Alhambra, Calif. (B-H-Hvy)
 Vlacich, Robt., 2901 Worthen Ave., Los Angeles 39, Calif. (H-Hvy)
 Walker, P. J., Co., 3900 Whiteside Ave., Los Angeles 63, Calif. (B-H-Hvy)

Warren-Southwest, Inc., P. O. Box 419, 20900 S. Normandie Ave., Torrance, Calif. (H-Hvy)
 Wattson, R. A., Co., 12550 Saticoy St., P. O. Box 747, North Hollywood, Calif. (H-Hvy)
 Webb, Del E., Constr. Co., 5101 San Fernando Rd., Los Angeles 39, Calif. (B-Hvy)
 Webb & White, 7220½ Melrose Ave., Los Angeles 46, Calif. (H-Hvy)
 Westbrook, R. A., P. O. Box 437, Monterey Park, Calif. (B-H-Hvy)
 Western Contracting Corporation, 400 Benson Bldg., Sioux City 15, Iowa (H-Hvy)
 Western Motor Transfer, Inc., 118 State St., Santa Barbara, Calif. (H-Hvy)
 Western States Engrs., Inc., 5706 Airdrome St., Los Angeles 19, Calif. (B-Hvy)
 Western U. S. Constr. Co., 601 6th St., San Fernando, Calif. (B)
 Wilcox, Jack, P. O. Box 448, Huntington Park, Calif. (H)
 Willard-Brent Co., 254 E. 27th St., Los Angeles 11, Calif. (B)
 Williams & Burrows, Inc., & Carl N. Swenson Co., Inc., 10 California Dr., Burlingame, Calif. (B)
 Williams Waterproofing & Painting Co., 3107 Fletcher Dr., Los Angeles 65, Calif. (B)
 Willis, C. G., & Sons, Inc., 2119 E. 25th St., Los Angeles 11, Calif. (H-Hvy)
 Winston Bros. Company, 1532 S. California Ave., Monrovia, Calif. (B-H-Hvy)
 Wohl-Calhoun Co., 845 N. Highland Ave., Los Angeles 38, Calif. (B)
 Wonderly Constr. Co., 2694 Lime Ave., Long Beach 6, Calif. (H-Hvy)
 Wood, Clyde W., & Sons, Inc., 6900 Tujunga Ave., P. O. Box 620, North Hollywood, Calif. (B-H-Hvy)
 Yeager, E. L., Co., P. O. Box 87, Riverside, Calif. (H)
 Young, J. E., Pipeline Contr., Inc., 931 E. Rosecrans Ave., Los Angeles 2, Calif. (Hvy)
 Yount, H. J., 2123 Santiago St., Covina, Calif. (H-Hvy)

5. COLORADO

(a) COLORADO BUILDING CHAPTER

President—Gerald H. Phipps, Gerald H. Phipps, Inc., P. O. Box 2068, Denver, Colo.
Secretary-Manager—William S. Hibberd, 1421 Court Pl., Denver, Colo.
Telephone: Alpine 6604
 Bate, Thos., & Sons Co., 2311 10th St., Denver, Colo. (B)
 Bickhard Constr. Co., 4001 Jason St., Denver, Colo. (B)
 Brown-Schrepferman & Co., 240 Washington St., Denver 9, Colo. (B-H)
 Denver Bldrs., Inc., 1420 Ulster St., Denver, Colo. (B)
 Elder Constr. Co., 171 Vallejo St., Denver 9, Colo. (B)
 Empire Constr. Co., 3159 S. Broadway, Englewood, Colo. (B)
 Folsom Constr. Co., 40 W. Louisiana St., Denver 10, Colo. (B)

Hammond, H. W., 2600 Front View Crescent, Denver 11, Colo. (B)
 Hobbs, E. L., Constr. Co., 520 Acoma St., Denver 4, Colo. (B)
 Howell, Jas. R., & Co., 1030 W. 6th Ave., Denver, Colo. (B)
 Industrial Constrs., 3860 Galapago St., Denver 16, Colo. (B)
 J. & K. Constr. Co., 1378 Dexter St., Denver 7, Colo. (B)
 Johns Engr. Co., 375 Kalamath St., Denver 9, Colo. (B)
 Jones, E. B. & A. A., 682 Wyandot St., Denver 4, Colo. (B)
 Jones & Hezlep, 1 Galapago St., Denver 9, Colo. (B)
 Keller, John H., Constr. Co., 3613 E. 44th Ave., Denver, Colo. (B)
 Kenney, Frank M., Box 898, Denver, Colo. (B)
 Kenney, Jas. B., 3233 Osage St., P. O. Box 1214, Denver 1, Colo. (B)
 Kiewit, Peter, Sons' Co., Box 8787, University Pk. Sta., Denver 10, Colo. (B)
 Kirchhof, F. J., Constr. Co., 700 Lawrence St., Denver 4, Colo. (B)
 Marye-Northwestern Co., 6001 Colorado Blvd., Denver, Colo. (B)
 Mayer-Osborn Co., 1717 E. Colfax, Denver, Colo. (B)
 McNichol Constr. Co., The, 33 S. Fox St., Denver, Colo. (B)
 Mellwin Constr. Co., The, 35 S. Fox St., Denver 9, Colo. (B)
 Meyer Constr. Co., P. O. Box 106, Littleton, Colo. (B)
 Nielsen, N. R., & Sons, 632 Detroit St., Denver 6, Colo. (B)
 Olson Constr. Co., 535 Railway Exchange Bldg., Denver, Colo. (B)
 Olson & Hart, 323 Santa Fe Dr., Denver 9, Colo. (B)
 Pearce, John R., Constr. Co., 6120 E. 3d Ave., Denver, Colo. (B)
 Perlmutter, Abe, Constr. Co., Inc., 401 Vallejo St., Denver 9, Colo. (B)
 Petry, N. G., Constr. Co., 1114 W. 7th Ave., Denver, Colo. (B)
 Phipps, Gerald H., Inc., P. O. Box 2068, Denver, Colo. (B)
 Short, Harry E., Tile Co., 1132 Speer Blvd., Denver, Colo. (B)
 Swinerton & Walberg Co., 2040 S. Navajo, S. Denver Sta., Denver, Colo. (B)
 Tamminga, John S., Tramway Bldg., Denver 2, Colo. (B)
 Udesen, Robt., 3775 E. Alameda, Denver, Colo. (B)
 Utah Construction Co., 600 S. Forrest, Denver, Colo. (B-H-Hvy-RR)

(b) COLORADO CONTRACTORS ASSOCIATION, INC.

President—C. L. Hubner, C. L. Hubner Co., 4200 E. Jewell Ave., Denver 20, Colo.
Managing Director—Earle W. Devalon, Suite 169-170, Shirley Savoy Hotel, Broadway at 17th, Denver 2, Colo.
Telephone: Acoma 3524
 Adler Constr. Co., P. O. Box 1710, Rapid City, S. Dak. (H-Hvy)
 Alger Constr. Co., 1865 Garland, Lakewood, Colo. (H)

A.G.C. DIRECTORY

COLORADO—Continued

Anderson Contr. Co., 1114 6th Ave., Longmont, Colo. (H)
 Anderson, F. B., P. O. Box 431, Concord, Calif. (Hvy)
 Arthur & Allen, 409 N. Grand Ave., P. O. Box 1432, Pueblo, Colo. (H-Hvy)
 Atchison, R. R., Co., The, 4214 S. Logan St., Englewood, Colo. (H)
 Atkinson, Guy F., Co., 519 Symes Bldg., Denver 2, Colo. (H-Hvy)
 Baab Constr. Co., 828 19th St., Greeley, Colo. (H-Hvy)
 Berry, C. B., 764 Humboldt St., Denver 18, Colo. (H)
 Birchby & Nauman, Inc., 345 Navajo St., Denver 4, Colo. (H-Hvy)
 Blanchard, G. E., Box 268, Derby, Colo. (H)
 Brown Constr. Co., 17 Belle Aire Rd., Colorado Springs, Colo. (H)
 Burnett Constr. Co., 509 8th Ave., Durango, Colo. (H)
 Campsey, R. N., Constr. Co., 2233 Oneida St., Denver 7, Colo. (B-H)
 Choun Constr. Co., Inc., 980 Yates St., Denver 4, Colo. (Hvy)
 Colorado Constrs., Inc., 725 W. 39th Ave., Denver 16, Colo. (H)
 Condon-Cunningham Co., 4229 Lafayette Ave., Omaha 3, Nebr. (H-Hvy)
 Corn Constr. Co., 515 Santa Clara Ave., Grand Junction, Colo. (Hvy)
 Crocker & Ellett, Inc., 1863 Wazee St., Denver 2, Colo. (Hvy)
 Engineers Ltd. Pipeline Co., 2040 S. Navajo St., P. O. Box 4279, S. Denver Sta., Denver 9, Colo. (Hvy)
 Gardner Constr. Co., Box 360, Glenwood Springs, Colo. (H)
 Gordon Constr. Co., The, 1900 31st St., Denver 5, Colo. (H-Hvy)
 Haake, Floyd, 111 Lovato Lane, Santa Fe, N. Mex. (H)
 Hanes, C. M., Constr. Co., 110 W. 13th Ave., Denver 4, Colo. (H-Hvy)
 Harrison Constr. Co., The, 1566 S. Bannock St., Denver 10, Colo. (H)
 Heckendorf, F. A., 231 S. Curtis Ave., Littleton, Colo. (H)
 Hill, Carl V., Constr. Co., 1844 13th Ave., Greeley, Colo. (H)
 Hinman Bros. Constr. Co., The, P. O. Box 2571, Denver 1, Colo. (H-Hvy)
 Honnen, Ed. H., P. O. Box 5188, Terminal Annex, Denver 17, Colo. (H)
 Horn's Crane Service, 2735 W. Bayaud, Denver 19, Colo. (H)
 Horner, A. S., Constr. Co., 118 S. Pecos St., Denver 19, Colo. (H-Hvy)
 Hubner, C. L., Co., 4200 E. Jewell Ave., Denver 20, Colo. (H)
 Hunt Constr. Co., Steamboat Springs, Colo. (H)
 Hutcherson Constr. Co., Inc., 4101 E. Evans Ave., Denver 20, Colo. (H-Hvy)
 Inland Constr. Co., 414 Hynds Bldg., Box 197, Cheyenne, Wyo. (H-Hvy)

Jacobs, M. C., Constr. Co., 1161 S. St. Paul St., Denver 10, Colo. (H)
 Jones Constr. Co., 10550 W. Colfax Ave., Denver 14, Colo. (Hvy)
 Kenney, Frank M., Box 898, Denver 1, Colo. (B)
 Kenney, Jas. B., Inc., 3233 Osage St., P. O. Box 1214, Denver 1, Colo. (B-H)
 Kiewit, Peter, Sons' Co., Box 8787, University Park Sta., Denver 10, Colo. (Hvy)
 Lawrence Constr. Co., 5100 S. Lowell Blvd., Littleton, Colo. (H)
 Leone, Domenic, Constr. Co., Inc., 818 Oak St., Trinidad, Colo. (H)
 Lindstrom & Williams, 730 W. 42d Ave., Denver 16, Colo. (H)
 Lively, Ed., Box 326, Fairacres, N. Mex. (H)
 Lowdermilk Bros., 1950 W. Dartmouth, P. O. Box 4150, S. Denver Sta., Denver 9, Colo. (H-Hvy)
 Macco Corp. & Puget Sound Bridge & Dredg. Co., 14409 S. Paramount Blvd., Paramount, Calif. (Hvy)
 Magoffin, S. S., Co., Englewood, Colo. (Hvy)
 Mann Constr. Co., 2700 S. Elati St., Englewood, Colo. (Hvy)
 Mittry, K. S., Constr. Co., 416 Linden St., Ft. Collins, Colo. (H-Hvy)
 Monaghan, J. H.-N. M., Rt. 1, Derby, Colo. (H-Hvy)
 Monaghan & Smith Constr. Co., Rt. 1, Derby, Colo. (H)
 Northwestern Engr. Co., P. O. Box 567, Denver 1, Colo. (H)
 Ogden Constr. Co., Inc., 700 Locust St., Denver 20, Colo. (Hvy)
 Pettyjohn, F. S., Rt. 1, Alamosa, Colo. (H)
 Read Constr. Co., 706 W. 19th St., P. O. Box 357, Cheyenne, Wyo. (H-Hvy)
 Rippey, E. J., & Sons, Box 472, New Castle, Colo. (H)
 Rogers, Platt, Inc., P. O. Box 153, Pueblo, Colo. (H-Hvy)
 San-Ore Constr. Co., 200 E. Kansas, McPherson, Kans. (H)
 Schmidt Constr. Co., P. O. Box 66, Grand Junction, Colo. (H)
 Sears, M. J., 509 15th St., Denver 2, Colo. (H)
 Selander, Edw., 1010 Pikeview, Lakewood 15, Colo. (H-Hvy)
 Shore, Henry, Co., P. O. Box 271, Littleton, Colo. (H)
 Smith, Luke E., 1221 12th St., Denver 4, Colo. (H-Hvy)
 Swanson, Arnold, & Co., P. O. Box 133, Hastings, Nebr. (H-Hvy)
 Tarlton, G. L., Contr. Co., 5505 Dale Ave., St. Louis 10, Mo. (Hvy)
 Van Winkle Constr. Co., 1609 Ford St., Golden, Colo. (H)
 Western Constr., Inc., 2500 S. 8th Ave., Greeley, Colo. (Hvy)
 Winston Bros. Company, P. O. Box 208, Loveland, Colo. (H-Hvy)
 Wunderlich Contracting Company, 206 Patterson Bldg., Omaha 2, Nebr. (H-Hvy)

6. CONNECTICUT

(a) CONNECTICUT STATE CHAPTER

President—A. J. M. Giardini, The Associated Constr. Co., 1010 Wethersfield Ave., Hartford, Conn. Executive Vice President—Charles F. Grisham, 152 Temple St., New Haven, Conn. Telephone: Spruce 7-8536

Allaire, P., & Sons, Inc., 350 Riverside Ave., Bristol, Conn. (B)
 Ames, Constr. Co., The, 15 Standish St., Hartford, Conn. (B)
 Anderson Fair Oaks Constr. Co., 145 S. Marshall St., Hartford, Conn. (B)
 Associated Constr. Co., The, 1010 Wethersfield Ave., Hartford, Conn. (B)
 Barney, W. J., Corp. c/o The Pfizer Co., Groton, Conn. (B)
 Bartlett-Brainard Co., 103 Woodbine St., Hartford 6, Conn. (B)
 Blakeslee, C. W., & Sons, Inc., 58 Waverly St., New Haven, Conn. (B-H-Hvy-RR)
 Bonvicini Bldg. Co., 1500 S. Main St., Torrington, Conn. (B)
 Brady, Geo. J., Co., Inc., 134 4th St., Hamden, Conn. (B)
 Bray, Edw. E., Co., Inc., 352 River St., Bridgeport, Conn. (B)
 Brooklawn Constr. Co., The, 254 Prospect Ave., Hartford, Conn. (B)
 Burghart, O. F., Inc., 871 Central Ave., Bridgeport 8, Conn. (B)
 Carlson & Torrell Co., The, 50 Dwight St., New Britain, Conn. (B)
 Chapel Constr. Co., The, 100 Ashmun St., New Haven, Conn. (B)
 Dwight Bldg. Co., The, 152 Temple St., New Haven, Conn. (B)
 E. & F. Constr. Co., Inc., The, 94 Wells St., Bridgeport 6, Conn. (B-Hvy)
 Frouge Constr. Co., Inc., 74 Goodsell St., Bridgeport, Conn. (B)
 Fusco-Amatruda Co., The, 59 Amity Rd., New Haven, Conn. (B)
 Gellatly Constr. Co., The, 181 Sylvan Ave., P. O. Box 6024, Beardsley Sta., Bridgeport 6, Conn. (B)
 Giordano Constr. Co., 287 Main St., Branford, Conn. (B)
 Halprin, Jack A., Inc., 679 State St., New Haven, Conn. (B)
 Hubbell, S. W., Bldg. Co., The, Ledgeway, Rt. 1, West Redding, Conn. (B)
 Industrial Constr. Co., The, 120 Prospect Ave., Hartford, Conn. (B)
 Johnson, Richard, Co., 167 Washington St., Hartford 6, Conn. (B)
 Jones, R. F., Co., The, 150 Willard Ave., Newington, Conn. (B)
 Kelley-Wood Co., The, 76 Center St., New Haven, Conn. (B)
 Kelly, Jos. F., Co., The, 184 Front Ave., P. O. Box 206, West Haven, Conn. (B)
 Lines, H. Wales, Co., The, 134 State St., Meriden, Conn. (B)
 Macomber, Geo. B. H., Co., 19 Milk St., Boston 9, Mass. (B)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

CONNECTICUT—Continued

Maring, Harry, Jr., Inc., 536 Lindley St., Bridgeport, Conn. (B)
 Massacoe Bldrs., Inc., Simsbury, Conn. (B)
 Megin, W. J., Inc., 51 Elm St., Naugatuck, Conn. (B)
 Monaco Constr. Co., The, 104 Reservoir Ave., Bridgeport, Conn. (B)
 Moss, Edwin, & Son, Inc., 555 Grant St., Bridgeport, Conn. (B)
 Mott-Mohr Constr. Co., Inc., 15 Mead St., New Haven, Conn. (B)
 Packtor, Edw., Co., 462 Silas Deane Hwy., Wethersfield, Conn. (B)
 Paterson Constr. Co., Inc., 66 Anderson St., New Haven, Conn. (B)
 Poriss, Benjamin F., 1021 Asylum Ave., Hartford 5, Conn. (B)
 Poriss, S. C., Constr. Co., The, 54 Church St., Hartford, Conn. (B)
 Rice, Jos. N., Inc., 60 Peck St., P. O. Box 145, Sta. A, New Haven, Conn. (B)
 Schoolnick, Louis, Constr. Co., 49 Garden St., Hartford, Conn. (B)
 Smith Constr. Co., Inc., 101 Water St., Derby, Conn. (B)
 Sullivan, Frank P., Inc., 110 Tyler St., East Haven, Conn. (B)
 Tomlinson & Hawley, Inc., 472 North Ave., Bridgeport 6, Conn. (B)
 Torrington Bldg. Co., The, 187 Church St., Torrington, Conn. (B)
 Wadhams & May Co., The, 15 Lewis St., Hartford, Conn. (B)
 Wheeler, Earl C., 15 Lewis St., Hartford 3, Conn. (B)
 Wooding, C. F., Co., The, 43 Wallace Ave., Wallingford, Conn. (B)
 Zandonella, John, 70 Chase St., Bridgeport 6, Conn. (B)

7. DELAWARE

(a) ASSOCIATED GENERAL CONTRACTORS OF DELAWARE

President—P. C. Van Sant, Van Sant Bros., Inc., 14 Ashley Pl., Wilmington, Del.
Executive Vice President—F. E. B. McCann, c/o Allied Constr. Inds. of Delaware, Inc., 419 Orange St., Wilmington 1, Del.
Telephone: 7264
 Bader, J. A., & Co., Inc., 923 Market St., Wilmington 7, Del. (B-H-Hvy)
 Bader, J. A., II, 1215 Gilpin Ave., Wilmington, Del. (B)
 Cantera Constr. Co., 1508 Pennsylvania Ave., Wilmington 6, Del. (B)
 Dangel's, David, Sons, 508 N. VanBuren St., Wilmington 3, Del. (B)
 DiSabatino & Ranieri, 612 W. 9th St., Wilmington, Del. (B)
 Dougherty, C. J., & Sons, Inc., 600 Tatnall St., Wilmington 1, Del. (B)
 Eckman, Chas. A., Co., 1707 Broome St., Wilmington 35, Del. (B)
 Fontana, D. M., 112 A St., Wilmington, Del. (B)
 George & Lynch Co., M210 Delaware Trust Bldg., Wilmington, Del. (B-H-Hvy)

Haddock, W. D., Constr. Co., P. O. Box 268, Wilmington 5, Del. (B)
 Healy, John E., & Sons, Inc., 707 Tatnall St., Wilmington 1, Del. (B)
 Julian, Jas., Constr. Co., 405 S. duPont Rd., Wilmington, Del. (B-H-Hvy)
 Julian, John, Constr. Co., 109 S. duPont Rd., Wilmington, Del. (B-H-Hvy)
 Krapf, Frederic G., & Son, 421 Orange St., Wilmington 1, Del. (B)
 Lynch, Harry S., Co., Inc., 715 Tatnall St., Wilmington 1, Del. (B)
 Nutter Constr. Co., 1315 Brandywine Blvd., Cragmere, Wilmington, Del. (B)
 Rupert Constr. Co., 3400 Lancaster Ave., Wilmington 22, Del. (B)
 Standard Bitulithic, Box 27, New Castle, Del. (B-H-Hvy)
 Van Sant Bros., Inc., 14 Ashley Pl., Wilmington, Del. (B)
 Wilson, H. P., DuPont Blvd. & State Rd., New Castle, Del. (B-H-Hvy)

8. DISTRICT OF COLUMBIA

(a) MASTER BUILDERS ASSOCIATION, INC.—DISTRICT OF COLUMBIA

President—I. Paul Hauck, John McShain, Inc., 1501 N. Arlington Ridge Rd., Arlington 9, Va.
Secretary-Treasurer—Randall C. Wyant, 1931 K St., N. W., Washington 6, D. C.
Telephone: District 7-1089
 American Constr. Co., Inc., 261 Constitution Ave., N. W., Washington 1, D. C. (B)
 Avery Constr. Co., Inc., 629 F St., N. W., Washington 4, D. C. (B)
 Bahen, Jos. B., Constr. Co., Inc., 418 Randolph St., N. W., Washington 11, D. C. (B)
 Bank Bldg. & Equip. Corp. of America, 506 11th St., N. W., Washington 5, D. C. (B)
 Barrett & Hilp, Rt. 1, Springfield, Va. (B)
 Beauchamp, Victor R., Inc., 6837 4th St., N. W., Washington 12, D. C. (B)
 Certified Bldrs., 407 Butternut St., N. W., Washington, D. C. (B)
 Chappell, W. M., Inc., 1346 Good Hope Rd., S. E., P. O. Box 4740, Washington 20, D. C. (B)
 Cladny, M., Constr. Co., Inc., Barrister Bldg., 635 F St., N. W., Washington 4, D. C. (B)
 Consolidated Engr. Co., Inc., 20 E. Franklin St., Baltimore 2, Md. (B)
 Cramer-Vollmerhausen Co., Inc., 2601 Connecticut Ave., N. W., Washington 8, D. C. (B)
 Daniels, E. L., 1511 N. Quincy St., P. O. Box EE, North Sta., Arlington, Va. (B)
 Davis Constr. Co., The, 320 W. 24th St., Baltimore 11, Md. (B)
 Davis & Platt, Inc., 401 Butternut St., N. W., Washington 12, D. C. (B)
 Davis, Wick, Rosengarten Co., Inc., 613 15th St., N. W., Washington 5, D. C. (B)
 Day & Zimmermann, Inc., P. O. Box 37, Indian Head, Md. (B-Hvy)

DuLaney, P. F., 216 C St., N. W., Washington 1, D. C. (B)
 Eastern Constr. Co., Inc., 439 S. Washington St., Falls Church, Va. (B)
 Friel, Edw. B., Inc., 6230 3d St., N. W., Washington 11, D. C. (B)
 Grove Shepherd Wilson & Kruge, Inc., 1425 H St., N. W., Washington 5, D. C. (B)
 Gunnell Constr. Co., Inc., Tower Bldg., 14th & K Sts., N. W., Washington 5, D. C. (B)
 Hedin, J. D., Constr. Co., 2900 Newton St., N. E., Washington 18, D. C. (B)
 Hyman, Geo., Constr. Co., The, 1010 Vermont Ave., N. W., Washington 5, D. C. (B-Hvy)
 Irons & Reynolds, Inc., 1724 H St., N. W., Washington 6, D. C. (B)
 Jeffress-Dyer, Inc., 908 20th St., N. W., Washington 6, D. C. (B)
 Johnson, John A., & Sons, Inc., Occidental Bldg., 1411 Pennsylvania Ave., N. W., Washington 4, D. C. (B)
 King, Jas., & Son, Inc., 1025 Connecticut Ave., N. W., Washington 6, D. C. (B)
 Lipscomb, Wm. P., Co., Inc., 535 Woodward Bldg., Washington 5, D. C. (B)
 Martell, F. H., Co., Inc., 1023 20th St., N. W., Washington 6, D. C. (B)
 Martin, Geo. C., 6213 31st St., N. W., Washington 15, D. C. (B)
 McShain, John, Inc., 1501 N. Arlington Ridge Rd., Arlington 9, Va. (B-Hvy)
 Mohler Constr. Co., 1223 Connecticut Ave., N. W., Washington 6, D. C. (B)
 Mooney, W. E., Co., Inc., 3924 14th St., N. W., Washington 11, D. C. (B)
 Nebel, Jos. F., Co., 2140 P St., N. W., Washington 7, D. C. (B)
 Owens, T. Calvin, Inc., 2708 26th St., N. E., Washington 18, D. C. (B)
 Parkhill Constr. Co., Inc., 14th St. & Park Rd., N. W., Riggs Bank Bldg., Washington 10, D. C. (B)
 Prescott Constr. Co., Inc., 1307 W St., N. W., Washington 9, D. C. (B)
 Rogers & McGrath, 1221 Kenilworth Ave., N. E., Washington 19, D. C. (B)
 Skinker & Garrett, 1719 Eye St., N. W., Washington 6, D. C. (B)
 Spencer, Warren, Inc., 616 Pershing Dr., Silver Spring, Md. (B)
 Tester, John, & Son, Inc., 1620 2d St., S. W., Washington 4, D. C. (B)
 Thompson-Starrett Co., Inc., 25 Louisiana Ave., N. W., Washington, D. C. (B)
 Tompkins, Chas. H., Co., 907 16th St., N. W., Washington 6, D. C. (B-Hvy)
 Tuckman-Barbee Constr. Co., Inc., 6230 3d St., N. W., Washington 11, D. C. (B)
 Turner Construction Co., 105 D St., N. W., Washington, D. C. (B)
 Whitty Constr. Co., 1101 Vermont Ave., N. W., Washington 5, D. C. (B)
 Zerkel Constr. Co., Inc., 16th & N. Arlington Ridge Rd., Box 233, Rosslyn Sta., Arlington 9, Va. (B)

Local Members

Corson & Gruman Company, 33d & Water Sts., N. W., Washington 7, D. C. (H)
 Standard Engr. Co., Inc., 2129 Eye St., N. W., Washington, D. C. (B)

9. FLORIDA

(a) NORTHEASTERN FLORIDA CHAPTER

President—Fred M. Cox, 3602 St. Johns Ave., Jacksonville, Fla.
Secretary-Treasurer—L. M. Newkirk, A. D. Newkirk & Son, 1436 June St., P. O. Box 5535, Jacksonville 7, Fla.
Telephone: 9-3521

Auchter, Geo. D., Co., The, 56th & Evergreen, Box 1193, Jacksonville 1, Fla. (B-H-Hvy)
 Beeler & Higgs, P. O. Box 5206, Jacksonville 7, Fla. (B)
 Clayton, A. L., Co., 2446 Dennis St., Box 2525, Jacksonville 4, Fla. (B)
 Cox, Fred M., 3602 St. Johns Ave., Jacksonville, Fla. (B)
 Dupree, Henry G., 1125 Kings Ave., Jacksonville, Fla. (B)
 Duval Engr. & Contr. Co., P. O. Box 1588, Jacksonville 1, Fla. (H)
 East Coast Constr. Co., 1514 Gary St., Jacksonville 7, Fla. (B)
 Foshee, D. O., Inc., 1313 Mary St., Jacksonville 7, Fla. (B)
 Gallespie Constr. Co., 218 W. Church St., Jacksonville 2, Fla. (B)
 Girvin & White, 1226 W. Forsyth St., Jacksonville 3, Fla. (B)
 Hillyer & Lovan, Box 371, Jacksonville 1, Fla. (B-Hvy)
 Industrial Contr. Co. & Assocs., P. O. Box 2797, Jacksonville, Fla. (B)
 Jacobs, S. S., Co., Box 4217, Jacksonville 1, Fla. (B-Hvy)
 Kenyon, E. C., 4276 Verona Ave., Jacksonville 5, Fla. (B)
 Neal, Vernon C., Inc., P. O. Box 174, Green Cove Springs, Fla. (B)
 Newkirk, A. D., & Son, 1436 June St., P. O. Box 5535, Jacksonville, Fla. (B)
 Perry, Arthur F., Co., 1528 E. Adams St., Box 1577, Jacksonville, Fla. (B)
 Small, Jas. H., & Co., Box 4786, Jacksonville 1, Fla. (B)
 Smith, Ivy H., Co., P. O. Box 5098, Jacksonville 7, Fla. (B-H)
 Smith, Paul, Constr. Co., P. O. Box 2370, Jacksonville, Fla. (B)
 Smith, R. McDonald, 3867 Arden St., Jacksonville, Fla. (B)
 Woodcock, O. P., Co., 430 W. Monroe St., Jacksonville 2, Fla. (B)

(b) SOUTH FLORIDA CHAPTER

President—M. R. Harrison, Jr., M. R. Harrison Constr. Corp., 5137 N. E. 2d Ave., Miami 37, Fla.
Executive Manager—Paul H. Hinds, 1113 Congress Bldg., Miami 32, Fla.
Telephone: 3-5633 & 3-5237

Albert Constr., Co., 3140 N. Miami Ave., Miami, Fla. (B)
 Asphalt Paving Co., Not Inc., P. O. Box 786, Coral Gables, Fla. (H)
 Barge-Thompson Co., 136 Ellis St., N. E., Atlanta 3, Ga. (B)
 Belcher Oil Co., 1217 Biscayne Blvd., P. O. Box 1751, Miami 30, Fla. (B-H-Hvy-RR)

Bratthauer-Walker Co., 1480 N. E. 131st St., North Miami, Fla. (B)
 Brewer Co. of Florida, Inc., The, 3810 N. W. 21st St., Miami, Fla. (H)
 Brooks Paving Co., 5607 N. W. 27th Ave., Miami, Fla. (H-Hvy)
 Bunnell-Ludwig Corp., 15151 W. Dixie Hwy., Box 426, North Miami Beach, Fla. (Hvy)
 Clutter Constr. Corp., 8340 N. E. 2d Ave., Rm. 241, Miami, Fla. (B)
 Deigaard & Preston Bldrs., Inc., 4063 Ponce de Leon Blvd., P. O. Box 733, Coral Gables 34, Fla. (B)
 Duffey Constr. Co., Inc., 1395 N. W. 21st St., Miami, Fla. (B)
 Fleming, Edw. M., Constr. Co., 4121 N. W. 25th St., Miami, Fla. (B)
 Gooch, J. Y., Co., Inc., 1205 Congress Bldg., P. O. Box 2170, Miami, Fla. (B)
 Graham, Angus W., Inc., 71 N. E. 21st St., Miami 37, Fla. (B)
 Green, Edwin M., Inc., 775 N. W. 21st St., Miami 45, Fla. (B)
 Hamilton Constr. Co., 7541 N. E. 3d Pl., Miami, Fla. (B)
 Harrison, M. R., Constr. Corp., 5137 N. E. 2d Ave., Miami 37, Fla. (B)
 Howland, Fred, Inc., 1451 N. W. 20th St., Miami 6, Fla. (B)
 James, T. J., Constr. Co., Inc., 1700 N. W. 119th St., Miami 47, Fla. (H-Hvy)
 Leifert Constr. Co., 2401 N. W. 2d Ave., Miami, Fla. (B)
 M & M Dredg. & Constr. Co., P. O. Box 627, Riverside Sta., Miami, Fla. (Hvy)
 Mevers, B. E., Inc., 365 Greco Ave., Coral Gables, Fla. (B)
 Orr, John B., Inc., 485 N. W. 54th St., Drawer "R", Little River Sta., Miami 38, Fla. (B)
 Powell Bros., Inc., 16 S. W. 1st Ave., P. O. Box 281, Ft. Lauderdale, Fla. (H-Hvy)
 Price, W. T., Dredg. Corp., 3200 S. W. 27th Ave., Miami 33, Fla. (H-Hvy)
 Reed Constr. Corp., 1345 20th St., Miami Beach 39, Fla. (Hvy)
 Rooney, Frank J., Inc., 5880 N. E. 4th Ave., Miami 38, Fla. (B)
 S & B Constr. Co., 224 Palermo Ave., Coral Gables, Fla. (B)
 St. John Co., The, 295 N. E. 61st St., Miami 37, Fla. (B)
 Shinn Constr. Co., 12345 W. Dixie Hwy., North Miami, Fla. (B)
 Sparks Constr. Co., Inc., 4565 Ponce de Leon Blvd., Coral Gables, Fla. (B)
 Star Constr. Co., 1440 N. W. 21st St., Miami, Fla. (B)
 Stobs Bros. Constr. Co., 7010 N. E. 4th Ct., Miami, Fla. (B)
 Stockton, C. T., Inc., 660 N. W. 54th St., Miami, Fla. (H)
 Stow & Rajal, Inc., 274 N. W. 54th St., Miami, Fla. (B)
 Taylor Constr. Co., 2875 N. LeJeune Rd., Miami, Fla. (B)
 Troup Bros., Inc., 4152 S. Dixie Hwy., P. O. Box 168, Coconut Grove Sta., Miami 33, Fla. (H-Hvy)
 Turchin, Robt. L., Inc., 1835 Purdy Ave., Miami Beach, Fla. (B)

Wheeler, C. F., Bldr., 810 N. W. 72d St., Miami, Fla. (B)
 Willits, Perry E., Inc., 151 N. E. 62d St., Miami, Fla. (B)
 Witters Constr. Co., Inc., P. O. Box 6, Riverside Sta., Miami, Fla. (B)
 Wright, R. H., & Son, Inc., 1050 N. E. 5th Terr., P. O. Box 781, Fort Lauderdale, Fla. (H)

(c) FLORIDA WEST COAST CHAPTER

President—Albert H. Jones, Mills & Jones, P. O. Box 264, 2260 4th Ave., So., St. Petersburg, Fla.
Secretary—Judson Edwards, Chamber of Commerce Bldg., P. O. Box 138, Tampa 1, Fla.
Telephone: 2-7643

Armstrong, W. H., Inc., 357 Scotland St., Dunedin, Fla. (H)
 Baya, Harry, Constr. Co., Inc., 910 1st National Bank Bldg., Tampa 2, Fla. (B)
 Blann-Lane Constr. Co., 4405 N. Armenia Ave., Tampa 7, Fla. (B)
 Boyce Co., 504 Pennsylvania Ave., Clearwater, Fla. (Hvy)
 Clair-Mel Bldrs., Inc., 4502 S. Dale Mabry, Tampa 9, Fla. (B)
 Clarson, R. E., Inc., 2000 13th Ave., No., P. O. Box 387, St. Petersburg, Fla. (B)
 Cone Bros. Contr. Co., Caesar St. & Cumberland, P. O. Box 652, Tampa 1, Fla. (H)
 Dawkins, C. T., 420 S. Rome Ave., Tampa 6, Fla. (B-Hvy)
 Ellis-Thompson Constr. Co., Inc., P. O. Box 1132, Tampa 1, Fla. (B)
 Ewell Engr. & Contr. Co., 1248 New Tampa Hwy., P. O. Box 791, Lakeland, Fla. (B-H)
 Fielland, C. A., Inc., 107 N. Rome Ave., Tampa 6, Fla. (B)
 Fox & Fox, 2620 8th Ave., No., St. Petersburg, Fla. (B)
 Gilbert & Shields Constrs., Inc., 1101 Eva, P. O. Box 2015, Tampa, Fla. (B)
 Hammer Bldg. & Supply Co., Inc., 1302 Grand Central Ave., Tampa 6, Fla. (B)
 Harvard Constr., Inc., 943 Tyrone Blvd., St. Petersburg, Fla. (B)
 Hendry Bldg. Co., 1400 2d Ave., No., St. Petersburg, Fla. (B)
 Hennessy, A. P., & Sons, Inc., 2300 22d St., No., St. Petersburg, Fla. (B)
 Hubbard Constr. Co., P. O. Box 713, Orlando, Fla. (B-H-Hvy)
 Laurence & Rutledge, Inc., 8 E. Bay Dr., P. O. Box 325, Largo, Fla. (Hvy)
 Mariani-O'Brien, Inc., P. O. Box 1367, St. Petersburg, Fla. (B-Hvy)
 McAnulty, Inc., P. O. Box 240, Bradenton, Fla. (B)
 Mills & Jones, P. O. Box 264, 2260 4th Ave., So., St. Petersburg, Fla. (B)
 Pemberton Bldrs., Inc., P. O. Box 90, Plant City, Fla. (B)
 Polk Constr. Co., Tampa Hwy., P. O. Box 351, Lakeland, Fla. (B-H)
 Ranon & Jimenez, 809 E. Oak Ave., Tampa 2, Fla. (B)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

FLORIDA—Continued

Rappaport, Alfred M., 222 Main St., Sarasota, Fla. (B)
 Saine Co., P. O. Box 2107, Orlando, Fla. (Hvy)
 Sapp, J. Hilbert, Inc., 1950 N. Orange Ave., Orlando, Fla. (B)
 Smith, Paul, Constr. Co., 310 N. Rome Ave., P. O. Box 1912, Tampa 6, Fla. (B)
 Stansfield Constr. Co., 2401 Horatio St., Tampa 6, Fla. (B-Hvy-RR)
 Stephens, J. S., & Sons, 902 N. Rome Ave., Tampa 6, Fla. (B)
 Thompson, R. M., Co., 712 Grand Central Ave., P. O. Box 1046, Clearwater, Fla. (B)
 Van Eyck, T., 7009 Central Ave., Tampa 4, Fla. (B)
 White Constr. & Engr. Co., 300 22d St., So., St. Petersburg, Fla. (Hvy)

(d) NORTHWEST FLORIDA CHAPTER

President—Raymond Dyson, Dyson & Co., P. O. Box 22, 806 W. Romana St., Pensacola, Fla.
Secretary—Mrs. Bena D. Gardner, 502 Thiesen Bldg., Pensacola, Fla.
Telephone: 8-0551

Blanchard-Hall Constr. Co., Box 1129, Pensacola, Fla. (B)
 Bowen Baggett Co., 2015 W. Jefferson St., Quincy, Fla. (B)
 Callaway Constr. Co., 908 Barrancas Ave., Box 4566, Warrington, Fla. (B)
 Chavis Constr. Co., 3107 N. Davis St., Box 2145, Pensacola, Fla. (B)
 Dyson & Co., 806 W. Romana St., P. O. Box 22, Pensacola, Fla. (B)
 Floral Constr. Co., P. O. Box 4851, Warrington, Fla. (B)
 Fulghum, Kenneth, Inc., Palafox Hwy., P. O. Box 643, Pensacola, Fla. (B)
 Greenhut Constr. Co., 23 S. "A" St., Pensacola, Fla. (B)
 Guillaume, C. D., Constr. Co., P. O. Box 62, Gulf Breeze, Fla. (B)
 Mason, C. N., Co., 1711 N. "O" St., P. O. Box 5247, Pensacola, Fla. (H-Hvy)
 Osceola Constr. Co., Mobile Hwy., P. O. Box 788, Pensacola, Fla. (B)
 Parda, T. J., 1215 N. DeVilliers, Box 523, Pensacola, Fla. (B)
 Soule Constr. Co., 1313 N. "O" St., P. O. Box 1725, Pensacola, Fla. (B-Hvy)
 Wise Constr. Co., P. O. Box 2021, Pensacola, Fla. (B)

(e) FLORIDA EAST COAST CHAPTER

President—W. H. Arnold, Arnold Constr. Co., 7 Murray Bldg., Palm Beach, Fla.
Executive Manager—Wm. P. Bobb, Jr., 340 Royal Palm Way, Palm Beach, Fla.
Telephone: 2-2364

Arnold Constr. Co., 7 Murray Bldg., Palm Beach, Fla. (B)
 Birdsall, John H., Jr., 338 Royal Palm Way, Palm Beach, Fla. (B)

Brown, Robt. C., 511 25th St., Box 211, Riviera Beach, Fla. (B)
 Butler & Oenbrink, 207 Royal Palm Way, Palm Beach, Fla. (B)
 Cleary Bros. Constr. Co., P. O. Box 6815, West Palm Beach, Fla. (H-Hvy)
 Coastal Properties Corp., P. O. Box 6095, West Palm Beach, Fla. (B)
 Cromer, Howard Lee, N. E. 1st St., Delray Beach, Fla. (Hvy)
 DeVos Constr. Co., 726 S. J St., Lake Worth, Fla. (B)
 Dioguardi, E. T., 509 Northwood Rd., West Palm Beach, Fla. (B)
 Edelblut Constr. Co., Inc., P. O. Box 2247, West Palm Beach, Fla. (B-Hvy)
 Glissen, Til, & Co., 2405 Division Ave., P. O. Box 8085, West Palm Beach, Fla. (B)
 Hawkins Constr. Co., 820 25th St., Box 8036, West Palm Beach, Fla. (B)
 Hillier, Don, & Sons, Inc., P. O. Box 507, Pahokee, Fla. (B)
 Kendall Constr. Co., Inc., 5414 Georgia Ave., West Palm Beach, Fla. (B)
 Lassiter, W. G., 625 Glenridge Dr., West Palm Beach, Fla. (B)
 Latham Constr. Co., 1400 Congress Ave., P. O. Box 165, West Palm Beach, Fla. (Hvy)
 Lissenden, P. C., Co., Inc., P. O. Box 88, Guaranty Bldg., West Palm Beach, Fla. (B)
 McLaren Bros. Constr. Co., 518 Comeau Bldg., West Palm Beach, Fla. (B)
 Nora Constr. Co., 214 Royal Palm Way, Palm Beach, Fla. (B)
 Prather, W. F., Inc., 714 Iris St., West Palm Beach, Fla. (B)
 Rubin Constr. Co., Box 2771, West Palm Beach, Fla. (H-Hvy)
 Trieste Constr. Co., Inc., 144 N. Federal Hwy., Delray Beach, Fla. (B)

(f) FLORIDA CENTRAL EAST COAST CHAPTER

President—Robert R. Gahn, Security Constr. Co., 238 N. Coates St., Daytona Beach, Fla.
Secretary—W. R. McCracken, McCracken & Berry Constr. Co., P. O. Box 151, Ormond Beach, Fla.

Dyson, F. A., 201 W. 17th St., Sanford, Fla. (B)
 Ellington Constr. Co., P. O. Box 1048, Cocoa, Fla. (B)
 Guerin & Jacobus, Inc., Bldg. 11, Melbourne Airport, P. O. Box 237, Melbourne, Fla. (B)
 McCracken & Berry Constr. Co., P. O. Box 151, Ormond Beach, Fla. (B)
 Patrick, W. W., 224½ S. Beach St., Daytona Beach, Fla. (B)
 Puckett, Taylor E., 1230 Volusia Ave., Daytona Beach, Fla. (B)
 Quillian's Concrete, P. O. Box 68, Holly Hill, Fla. (B)
 Security Constr. Co., 238 N. Coates St., Daytona Beach, Fla. (B)
 Slater Constr. Co., Inc., Pinewood Rd., Ormond Beach, Fla. (B)
 Wickham & Jessup Constr. Co., Avocado St., Box 878, Eau Gallie, Fla. (B)

10. GEORGIA**(a) GEORGIA BRANCH**

President—H. D. Humphries, Concrete Bldrs., Inc., 800 East Ave., N. E., Atlanta, Ga.
Executive Secretary—Robert H. Strickland, Builders Bldg., 163 Harris St., N. W., Atlanta, Ga.
Telephone: Walnut 5941

Abrams, A. R., Inc., P. O. Box 1969, 362 Jones Ave., N. W., Atlanta, Ga. (B)
 Adair, C. A., & Co., 73 W. Peachtree Pl., N. W., Atlanta 3, Ga. (B)
 Alexander Constr. Co., 496 Plum St., N. W., Atlanta, Ga. (B)
 Archer Bros., Inc., 734 Boulevard, N. E., Atlanta, Ga. (B)
 Arco Co., 510 Edgewood Ave., N. E., Atlanta, Ga. (B)
 Artley Co., 504 E. Bay St., Savannah, Ga. (B)
 Barge-Thompson Co., 136 Ellis St., N. E., Atlanta 3, Ga. (B)
 Batson-Cook Co., Inc., P. O. Box 151, West Point, Ga. (B)
 Beck, Henry C., Co., 513 1st National Bank Bldg., Atlanta 3, Ga. (B)
 Beckham, E. M., Constr. Co., Perry, Ga. (H-Hvy)
 Beers Constr. Co., 70 Ellis St., N. E., Atlanta 3, Ga. (B)
 Black, J. J., & Co., 575 Plum St., N. W., Atlanta 3, Ga. (B)
 Bowen, R. A., Constr. Co., P. O. Box 1164, Macon, Ga. (B-H)
 Bradfield, J. P., P. O. Box 143, Columbus, Ga. (B)
 Bray, J. N., Co., P. O. Box 528, Valdosta, Ga. (B)
 Briggs, A. R., Constr. Co., 526 Arch St., Macon, Ga. (B)
 Brittain, T. C., Co., 106 E. Ponce De Leon Ave., Rm. 213, Decatur, Ga. (B)
 Capital Constr. Co., 167 Harris St., N. W., Atlanta 3, Ga. (B)
 Carroll Constr. Co., 166 Courtland St., N. E., Atlanta, Ga. (B)
 Caskey, G. M., & Son, 217 Thomas St., Athens, Ga. (B)
 Central Constr. Co., 125 W. Ponce De Leon Ave., Decatur, Ga. (B)
 Christian & Bell Co., 664 Spring St., N. W., Atlanta 3, Ga. (B)
 Concrete Bldrs., Inc., 800 East Ave., N. E., Atlanta, Ga. (B)
 Concrete Constr. Co., 137 Boulevard, N. E., Atlanta, Ga. (Hvy)
 Conn Structures, 209-12 Whitehead Bldg., Atlanta, Ga. (B)
 Cornell-Young Co., P. O. Box 96, Macon, Ga. (H-Hvy-RR)
 Culpepper & Edwards, Pelham, Ga. (B)
 Dalon Contr. Co., Inc., P. O. Box 3284, Station F, Atlanta, Ga. (H)
 Daniel, Carroll, Constr. Co., P. O. Box 435, Gainesville, Ga. (B)
 Daniel Lumber Co., La Grange, Ga. (B)
 deGive-Dunham & O'Neill, 617 Grand Bldg., Atlanta, Ga. (B)
 Delta Constr. Co., 1049 Albany Ave., P. O. Box 4, Waycross, Ga. (B)

GEORGIA—Continued

Donnellan, G. P., 274 Buckhead Ave., N. E., Atlanta, Ga. (B)
 Farnsworth, R. P., & Co., Inc., P. O. Box 989, Warner Robins, Ga. (B)
 Flagler Co., The, 305 Techwood Dr., Atlanta, Ga. (B)
 Fuller, Geo. L., Constr. Co., Fuller Bldg., Augusta, Ga. (B)
 Gann Constr. Co., 74 Alexander St., N. W., Atlanta, Ga. (B)
 Georgia Southern Constr. Co., 3330 Vineville Ave., Macon, Ga. (B)
 Griffin Constr. Co., 26 3d St., N. W., Atlanta 3, Ga. (B-RR)
 Griffith & Moorehead, 33 Hunter St., S. W., Rm. 212, Atlanta, Ga. (B)
 H & H Constr. & Supply Co., Thomasville, Ga. (B)
 Hadden, C. Frank, P. O. Box 792, Albany, Ga. (B)
 Hall Constr. Co., 664 Spring St., N. W., Atlanta, Ga. (B)
 Hallman Bros., 45 11th St., N. E., Atlanta, Ga. (B)
 Hardaway Contr. Co., P. O. Box 1360, Columbus, Ga. (H-Hvy)
 Hardin, Ira H., Co., 174 Mills St., N. W., Atlanta, Ga. (B)
 Hennigh, H. E., P. O. Box 325, Cedartown, Ga. (B)
 Herrman Constr. Co., 800 Forrest St., N. W., Atlanta, Ga. (B)
 Ivey Bros., Constr. Co., 3224 Peachtree Rd., N. E., Atlanta, Ga. (B)
 Jackson & Brittain, 224 W. Bay St., Savannah, Ga. (B)
 Jerome Constr. Co., 14 N. Abercorn St., Savannah, Ga. (B)
 Johnson & Johnson Constr. Co., 401 West Bldg., Rome, Ga. (B)
 Jones, J. A., Constr. Co., Inc., 133 Ellis St., N. E., Atlanta, Ga. (B-H-Hvy-RR)
 Jones, Jiroud, & Co., 205 Walton Bldg., Atlanta 3, Ga. (B)
 Jordan Co., The, P. O. Box 1179, Columbus, Ga. (B)
 Kesling, Paul H., P. O. Box 4, Waycross, Ga. (B)
 Lambert, M. T., Co., 701 Lambert Dr., N. E., Atlanta, Ga. (B-Hvy)
 Lee, Ray M., Co., 1004 Edgewood Ave., N. E., Atlanta, Ga. (B)
 Lewis, T. S., Jr., & Co., Inc., 1205 Bull St., P. O. Box 1703, Savannah, Ga. (B)
 Mathis Constr. Co., 1525 S. Lumpkin St., P. O. Box 1323, Athens, Ga. (B)
 Maxon Construction Company, Inc., 131 N. Ludlow St., Dayton 2, Ohio (Hvy)
 McCall, R. R., Co., 298 S. Stevens St., Valdosta, Ga. (B)
 McRae, Farquhar, 11 Arcade Bldg., Savannah, Ga. (B)
 Meador Constr. Co., 10 Harris St., N. W., Atlanta 3, Ga. (H-Hvy)
 Mion Constr. Co., 377 Techwood Dr., N. W., Atlanta 1, Ga. (B-H)
 Mobley, Clarence, Contr. Co., 630 11th St., Augusta, Ga. (B)

Modernization Constr. Co., 305 Techwood Dr., N. W., Atlanta, Ga. (B)
 Munn-McCorkle Co., 526 Plum St., N. W., Atlanta 3, Ga. (B)
 Newbanks, Merrill W., Co., 125 Merritts Ave., N. E., Atlanta, Ga. (B)
 Newsome, Douglas E., 218 Flowers Bldg., Columbus, Ga. (B)
 Nonnemaker-Clayton Constr. Co., 70 Houston St., N. E., Atlanta 3, Ga. (B)
 P. & W. Constr. Co., Inc., 2025 Peachtree Rd., N. E., Atlanta, Ga. (H)
 Pardue Constr. Co., Commerce, Ga. (B)
 Pearce, T. H., & Co., 416 Edgewood Circle, Columbus, Ga. (B)
 Pew, Arthur, Constr. Co., 3110½ Roswell Rd., N. W., Atlanta, Ga. (B-H-Hvy)
 Pound, Murphey, Constr. Co., P. O. Box 172, Columbus, Ga. (B)
 Raymond Concrete Pile Co., 1523 Healey Bldg., Atlanta, Ga. (H-Hvy-RR)
 Roberts, J. P., 203 E. 1st St., P. O. Box 327, Rome, Ga. (B)
 Rose, W. P., Constr. Co., 280 Whiteford Ave., N. E., Atlanta, Ga. (B-H)
 Rutland Contr. Co., 1401 E. Ponce De Leon Ave., P. O. Box 24, Decatur, Ga. (H)
 Samford, A. C., Inc., P. O. Box 1229, Albany, Ga. (B)
 Sanders, Marthame, & Co., 800 East Ave., N. E., Atlanta, Ga. (B)
 Scott Constr. Co., Thomasville, Ga. (H-Hvy)
 Shaw, M. E., Contr. Co., P. O. Box 871, Macon, Ga. (B)
 Sheridan-Punaro Co., 645 Plum St., P. O. Box 1333, Macon, Ga. (B)
 Smalling's, R. H., Sons, 301 Bibb Bldg., Macon, Ga. (B)
 Smith, R. T., 982 Lullwater Rd., N. E., Atlanta, Ga. (H)
 Smithfield, E. O., 489 Bishop St., N. W., Atlanta, Ga. (B)
 Sockwell Co., 156 Rogers St., N. E., Atlanta, Ga. (Hvy)
 Southern Constr. Co., Inc., Daniel Field, Augusta, Ga. (B)
 Stillwell Constr. Co., P. O. Box 1334, Macon, Ga. (B)
 Stockton, J. C., & Son, P. O. Box 2014, Hill Sta., Augusta, Ga. (B)
 Strong, Walter H., 701 E. Duffy St., Savannah, Ga. (B)
 Strother-Barge Co., 189 Cain St., N. E., Atlanta, Ga. (B)
 Swift Constr. Co., Swift Bldg., P. O. Box, 1059, Columbus, Ga. (B)
 Thompson & Street Co., P. O. Box 583, Albany, Ga. (B)
 Tinker, H. G., P. O. Box 432, Macon, Ga. (B-H-Hvy)
 Union Constr. Co., P. O. Box 1584, Atlanta, Ga. (H-Hvy-RR)
 Van Winkle & Co., Rm. 573, 805 Peachtree St. Bldg., Atlanta, Ga. (B)
 Wesley & Co., Inc., 285 Hunnicutt St., N. W., Atlanta, Ga. (B)
 Whalley Constr. Co., Montgomery & 58th Sts., Savannah, Ga. (B)

11. IDAHO

(a) IDAHO BRANCH

President—Wm. Gramkow, Jr., Kloepper & Gramkow, 416 S. 6th St., Boise, Idaho
Manager—J. T. R. McCorkle, Hotel Boise, Boise, Idaho
Telephone: 2868

Arrington Constr. Co., P. O. Box 881, Idaho Falls, Idaho (B-Hvy)
 Aslett Constr. Co., Box 799, Twin Falls, Idaho (H)
 Asphalt Paving & Constr. Co., Inc., 3206 Pleasanton Ave., Boise, Idaho (B)
 Babbitt Constr. Co., Inc., 1620 Taggart St., Boise, Idaho (B)
 Barnhart & Wheeler, P. O. Box 1107, Pocatello, Idaho (H-Hvy)
 Brennan, J. W., Box 507, Pocatello, Idaho (B-Hvy)
 Burgraf Constr. Co., Box 397, Idaho Falls, Idaho (H)
 C-L Elec. Co., 410 S. Main St., Pocatello, Idaho (Hvy)
 Cahoon, W. R., Box 507, Pocatello, Idaho (B)
 Detweiler Bros., Inc., P. O. Box 870, Twin Falls, Idaho (Hvy)
 F & S Contr. Co., 1300 Chicago St., P. O. Box 4, Butte, Mont. (H-Hvy)
 Fulton, E. A., 2610 Davis St., Boise, Idaho (B)
 Goodwin Constr. Co., Hopkins Bldg., Box 791, Blackfoot, Idaho (B-H-Hvy)
 Halvorson Constr. Co., Salem, Oreg. (H-Hvy)
 Hess, Marion J., P. O. Box 247, Malad, Idaho (H-Hvy)
 Holmes Constr. Co., Rt. 1, Heyburn, Idaho (H)
 Hoops Constr. Co., Box 431, Twin Falls, Idaho (H-Hvy)
 Horn, Henry L., P. O. Box 293, Connell, Wash. (Hvy)
 Idaho Constrs., Inc., 1311 N. 25th, Boise, Idaho (H-Hvy)
 Intermountain Bldrs., Inc., P. O. Box 506, Caldwell, Idaho (B)
 Intermountain Plumbing Co., 1322 Grove St., P. O. Box 1652, Boise, Idaho (B-Hvy)
 Kiewit, Peter, Sons' Co., P. O. Box 875, Sheridan, Wyo. (H-Hvy)
 Kloepper & Gramkow, 416 S. 6th St., Boise, Idaho (B)
 Lauch, C. B., Constr. Co., Box 2559, Boise, Idaho (B)
 Marrazzo, Tony, Box 876, Boise, Idaho (H)
 Martin Constr. Co., 502 Idaho Bldg., P. O. Box 2614, Boise, Idaho (B-Hvy)
 McCorkle, Tom, Constr. Co., 3001 Idaho St., Box 2578, Boise, Idaho (H)
 Morrison-Knudsen Co., Inc., 319 Broadway, Box 450, Boise, Idaho (H-Hvy-RR)
 Mountain States Constr. Co., Inc., Hwy. 30, Pocatello, Idaho (H-Hvy)
 Palisades Contrs., Irwin, Idaho (H-Hvy)
 Pickett & Nelson, P. O. Box 755, Idaho Falls, Idaho (H)
 Quinn-Robbins Co., Inc., 703 S. 16th St., Boise, Idaho (H)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

IDAHO—Continued

Reed, Duffy, Constr. Co., Box 1092, Twin Falls, Idaho (H)
 Reynolds & Walker, Inc., Box 363, Twin Falls, Idaho (B)
 Sweeney, David M., Co., 429 B St., Idaho Falls, Idaho (B-Hvy)
 Terteling, J. A., & Sons, Inc., P. O. Box 1428, Boise, Idaho (B-H-Hvy-RR)
 Triangle Constr. Co., 3507 Crescent Rim Dr., Boise, Idaho (H-Hvy)
 Twin Falls Constr. Co., Box 1081, Twin Falls, Idaho (H)
 Valley Crushing Co., P. O. Box 863, Boise, Idaho (H)
 Vernon Bros. Co., Box 1787, Boise, Idaho (B-Hvy)
 Watkins, C. W., & Son, P. O. Box 1786, Boise, Idaho (B)
 Western Constr. Co., Box 628, Pocatello, Idaho (H)
 Wise, J. H., & Son, 424 Broadway, Boise, Idaho (B)
 Woodall Bros., Box 246, Eagle, Idaho (H)

12. ILLINOIS

(a) CHICAGO BUILDERS' CHAPTER

President—David B. Johnson, Chas. B. Johnson & Son, 122 S. Michigan Blvd., Chicago 3, Ill.
Secretary—H. M. Stanton, Builders Bldg., 228 N. LaSalle St., Chicago 1, Ill.
Telephone: Franklin 2-4480

Ahern, Wm. S., Constr. Co., 159 E. Chicago Ave., Chicago 11, Ill. (B)
 Blauner Constr. Co., 208 N. Wells St., Chicago 8, Ill. (B)
 Anderson, J. Emil, & Son, 1809 Balmoral Ave., Chicago 40, Ill. (B)
 Blauner Constr. Co., 208 N. Wells St., Chicago 6, Ill. (B)
 Boyle, M. J., & Co., 2480 N. Elston Ave., Chicago 47, Ill. (B-Hvy)
 Brockob, R. L., Constr. Co., 815 S. Cicero Ave., Chicago 44, Ill. (B)
 Builders Co., The, 700 N. State Bldg., 2 W. Huron St., Chicago 10, Ill. (B)
 Bulley & Andrews, 1755 W. Armitage Ave., Chicago 22, Ill. (B)
 Carroll Constr. Co., 333 N. Michigan Ave., Chicago 1, Ill. (B)
 Coath & Goss, Inc., 5103 W. Lake St., Chicago 44, Ill. (B)
 Dahl-Stedman Co., 7 S. Dearborn St., Chicago 3, Ill. (B)
 Ellington-Miller Co., 25 E. Jackson Blvd., Chicago 4, Ill. (B-RR)
 Engineering Constr. Corp., 173 W. Madison St., Chicago 2, Ill. (B)
 Ericsson, Henry, Co., 228 N. LaSalle St., Chicago 1, Ill. (B)
 Federal Constrs., Inc., 173 W. Madison St., Chicago 2, Ill. (B)
 FitzSimmons & Connell Dredge & Dock Co., 10 S. LaSalle St., Chicago 3, Ill. (B-Hvy)
 Fuller, George A., Company, 111 W. Washington St., Chicago 2, Ill. (B)

Goss, Wm. R., Co., 8316 S. Ellis Ave., Chicago 19, Ill. (B)
 Greene & Gust Co., 1635 Grace St., Chicago 13, Ill. (B)
 Griffiths, John, & Son Constr. Co., 228 N. LaSalle St., Chicago 1, Ill. (B)
 Haigh, Jos., & Sons Co., 38 S. Dearborn St., Chicago 3, Ill. (B)
 Haynes, C. W., Co., 135 S. LaSalle St., Chicago 3, Ill. (B)
 Herlihy Mid-Continent Company, 135 S. LaSalle St., Chicago 3, Ill. (B)
 Iber, C., & Sons, P. O. Box 899, Peoria 1, Ill. (B)
 Jackson, A. L., Co., 161 E. Erie St., Chicago 11, Ill. (B)
 Johnson, Chas. B., & Son, 122 S. Michigan Blvd., Chicago 3, Ill. (B)
 Johnson, Geo. D., Co., 420 5th Ave., Peoria 1, Ill. (B)
 Kaiser-Ducett Co., 80 E. Jackson Blvd., Chicago 4, Ill. (B)
 Kinnare Corp., The, 2816 W. Monroe St., Chicago 12, Ill. (B)
 Krali Constr. Co., 350 N. Clark St., Chicago 10, Ill. (B)
 LaSalle Constr. Co., 343 S. Dearborn St., Chicago 4, Ill. (B)
 Leonard Constr. Co., 37 S. Wabash Ave., Chicago 3, Ill. (B)
 Lincoln, Martin P., Co., 5555 Sheridan Rd., Chicago 40, Ill. (B)
 Macdonald Engr. Co., 188 W. Randolph St., Chicago 1, Ill. (B)
 Marhoefer, E. H., Jr., Co., 505 N. LaSalle St., Chicago 10, Ill. (B)
 McHugh, Jas., Constr. Co., 6449 S. South Park Ave., Chicago 37, Ill. (B)
 Meyne, Gerhardt F., Co., 7 S. Dearborn St., Chicago 3, Ill. (B)
 Midland Constrs., Inc., 222 W. Adams St., Chicago 6, Ill. (B)
 Missner Constr. Co., 2940 N. Campbell Ave., Chicago 18, Ill. (B)
 Montague Constr. Co., 228 N. LaSalle St., Chicago 1, Ill. (B)
 Nielsen, S. N., Co., 3059 Augusta Blvd., Chicago 22, Ill. (B)
 Olson, Sherman, Inc., 219 N. Kilpatrick Ave., Chicago 44, Ill. (B)
 O'Neil, W. E., Constr. Co., 2751 N. Clybourn Ave., Chicago 14, Ill. (B)
 Permanent Constr. Co., 208 S. LaSalle St., Chicago 4, Ill. (B)
 Perry Constr. Co., 251 W. 79th St., Chicago 20, Ill. (B)
 Sherry-Richards Co., 228 N. LaSalle St., Chicago 1, Ill. (B)
 Simmons, J. L., Company, Inc., 185 N. Wabash Ave., Chicago 1, Ill. (B)
 Snyder, J. W., Co., 307 N. Michigan Ave., Chicago 1, Ill. (B)
 Sollitt, Geo., Constr. Co., 109 N. Dearborn St., Chicago 2, Ill. (B)
 Strandberg, L. B., & Son Co., 608 S. Dearborn St., Chicago 5, Ill. (B-H)
 Strandberg, Stewart O., Co., 134 S. LaSalle St., Chicago 3, Ill. (B-Hvy)
 Thorgersen & Erickson Co., 228 N. LaSalle St., Chicago 1, Ill. (B)
 Tully, John C., Co., 33 N. LaSalle St., Chicago 2, Ill. (B-Hvy)

Turner Construction Co., 105 W. Adams St., Chicago 3, Ill. (B)
 W.M. Corp., 608 S. Dearborn St., Chicago 5, Ill. (B-Hvy-RR)
 Young & Sons Constr. Co., Inc., 7553 Cregier Ave., Chicago 49, Ill. (B)

(b) ASSOCIATED BUILDING CONTRACTORS OF ROCKFORD, ILLINOIS, INC.

President—Elmer A. Schmeling, E. W. Schmeling & Sons, Inc., 1031 School St., Rockford, Ill.
Vice President—Frank E. Holmquist, P. O. Box 1541, 514 Warren Ave., Rockford, Ill.
Secretary-Treasurer—Mrs. Clara M. Miller, 203 Gateway Bldg., 121 7th St., Rockford, Ill.
Telephone: 3-8513

Glass Constr. Co., P. O. Box 47, Belvidere, Ill. (B)
 Hokanson & Bloom, 507 N. Chicago Ave., Rockford, Ill. (B)
 Holm-Page Co., The, 2117 Kishwaukee St., Rockford, Ill. (B)
 Holmquist, F. E., P. O. Box 1541, 514 Warren Ave., Rockford, Ill. (B)
 Larson, Gust G., & Sons, Inc., 1201 12th St., Rockford, Ill. (B)
 Linden & Sons, Inc., 1102 10th St., Rockford, Ill. (B)
 Lundin & Grip, Inc., 1203 22d St., Rockford, Ill. (B)
 Pearce, Frank S., Co., 115 N. Court St., Rockford, Ill. (B)
 Scandoli Constr. Co., 823 N. Madison St., Rockford, Ill. (B)
 Schmeling, E. W., & Sons, Inc., 1031 School St., Rockford, Ill. (B)
 Security Bldg. Co., Inc., 717 E. Jefferson St., Rockford, Ill. (B)
 Sjostrom & Sons, Inc., 1718 7th Ave., Rockford, Ill. (B)

(c) ASSOCIATED GENERAL CONTRACTORS OF ILLINOIS

President—Orville Shelato, McCalman Constr. Co., 619 Section St., P. O. Box 854, Danville, Ill.
Executive Secretary—Milo P. Flickinger, 319½ S. 6th St., P. O. Box 377, Springfield, Ill.
Telephone: 5746

Anderson Bros., 1700 Seminary St., P. O. Box 1571, Rockford, Ill. (H-Hvy)
 Arcole Midwest Corp., 3225 Main St., Evanston, Ill. (H-Hvy)
 Arrow Petroleum Co., 4811 S. Harlem Ave., Clearing Sta., Chicago 38, Ill. (H-Hvy)
 Barber Paving Co., The, 7 S. Dearborn St., Chicago 3, Ill. (H-Hvy)
 Bates & Rogers Construction Corp., 600 W. Jackson Blvd., Chicago 6, Ill. (Hvy-RR)
 Berenz & Son Asphalt Co., 500 E. Bell St., Bloomington, Ill. (H-Hvy)
 Bituminous Fuel & Oil Co., 304 Illinois Ave., East St. Louis, Ill. (H-Hvy)
 Black, Robt. A., Inc., 13912 S. Halsted, Chicago 27, Ill. (H-Hvy)

A.G.C. DIRECTORY

ILLINOIS—Continued

- Bridges Paving Co., 1411 Central Industrial Dr., St. Louis 10, Mo. (H-Hvy)
 Burner, J. R., Oblong, Ill. (H-Hvy)
 Bushman Constr. Co., 4638 J. C. Nichols Pkwy., Kansas City 2, Mo. (H-Hvy)
 Cameron, Joyce & Co., 19 S. 7th St., Keokuk, Iowa (H-Hvy)
 Central Engr. Co., 2531 Rockingham Rd., P. O. Box 838, Davenport, Iowa (H-Hvy)
 Champaign Asphalt Co., 310 E. Bradley Ave., Champaign, Ill. (H)
 Chism & Miller Constr. Co., S. 66 Belt Line, P. O. Box 1338, Springfield, Ill. (H-Hvy)
 Clark Bros. Co., 309 S. Jefferson Ave., Peoria 2, Ill. (H-Hvy)
 Collins-Bruley Constr. Co., P. O. Box 228, Decatur 6, Ill. (H-Hvy)
 Contracting Constr. Co., 3 Oakwood Ave., P. O. Box 553, Danville, Ill. (H-Hvy)
 Culberson Constr. Co., R. R. #3, Pana, Ill. (H-Hvy)
 Cullinan, R. A., & Son, Tremont, Ill. (H-Hvy)
 Danville Constr. Co., P. O. Box 223, 21 W. Harrison St., Danville, Ill. (H-Hvy)
 Denny, Dale, Constr. Co., 507 S. Green St., Anna, Ill. (H-Hvy)
 Devine, R. P., Kunkel Bldg., Watseka, Ill. (H-Hvy)
 Edwardsville Constr. Co., Bank of Edwardsville Bldg., Edwardsville, Ill. (H-Hvy)
 Elston Constr. Co., 430 25th Ave., Rock Island, Ill. (H-Hvy-RR)
 Feigel Constr. Corp., 800 E. Michigan St., Evansville 7, Ind. (B-H-Hvy)
 Feutz, Frank C., Co., 901 Tenbroeck St., Paris, Ill. (H-Hvy)
 Fleming & Kilgo Constr. Co., P. O. Box 191, (old St. Louis Rd.), East Alton, Ill. (H-Hvy)
 Ford, R. W., 704 S. Market St., Marion, Ill. (H-Hvy)
 Franklin Asphalt Co., P. O. Box 155, Benton, Ill. (H)
 Freeman, Jesse H., Inc., 1608½ 5th Ave., Moline, Ill. (H-Hvy)
 Fuller Paving Constr. Co., 79 W. Monroe St., Chicago 3, Ill. (H-Hvy)
 Gallagher Asphalt Co., Inc., P. O. Box 173, Thornton, Ill. (H)
 Gem Contr. & Paving, Inc., Moose Bldg., Quincy, Ill. (H-Hvy)
 General Paving Co., 30 E. John St., Champaign, Ill. (H-Hvy)
 Gilmore, Chas. G., Asphalt Prods., Inc., Anna, Ill. (H)
 Granite Bituminous Paving Co., 3943 Duncan Ave., St. Louis 10, Mo. (H-Hvy)
 Groves, S. J., & Sons Co., P. O. Box 1059, Springfield, Ill. (H-Hvy)
 Gund Graham Co., State Bank Bldg., Freeport, Ill. (H-Hvy)
 Gunther, H. H., Constr. Co., 600 E. Main St., Galesburg, Ill. (H-Hvy)
 Hall, H. H., Constr. Co., 211 S. 15th St., East St. Louis, Ill. (H-Hvy)
 Hartong & Co., 340 Sherwood Ct., LaGrange Park, Ill. (H)
 Hoeffken, M., Co. & Hoeffken Bros., Inc., 222 W. B St., Belleville, Ill. (H-Hvy)
 Holdren Constr. Co., P. O. Box 417, Mt. Vernon, Ill. (H-Hvy)
 Hollerich, J. P., Co., P. O. Box 391, LaSalle, Ill. (B-H-RR)
 Huckaba & Sons Constr. Co., 9th & Olive, Charleston, Ill. (H-Hvy)
 Illinois Steel Bridge Co., 205 Allen Ave., Jacksonville, Ill. (H-Hvy)
 Ind, Chas., Co., R. R. #1, Point Ave., Rockford, Ill. (H-Hvy)
 J-P Constr. Co., The, P. O. Box 123, 1750 State St., Chicago Heights, Ill. (H-Hvy)
 Jansen & Schaefer, 15th & Broadway, Pekin, Ill. (H-Hvy)
 Jefferson Asphalt Co., Inc., 1209 Casey, P. O. Box 447, Mt. Vernon, Ill. (H)
 Joliet Bridge & Constr. Co., 68 N. Chicago St., Rm. 323, Joliet, Ill. (H-Hvy)
 Joyce Bros. Contr. Co., 715 Myers Bldg., Springfield, Ill. (H-Hvy)
 Keeley Bros. Constr. Co., 4211 State St., East St. Louis, Ill. (H-Hvy)
 Ladd Constr. Co., Box 183, Ladd, Ill. (H-Hvy)
 Lake, D. M., Constr. Co., Box 109, Shelbyville, Ill. (H-Hvy)
 Larson, Elmer, Inc., 403 Lincoln Hwy., Malta, Ill. (H-Hvy)
 Maclair Asphalt Co., Inc., 6000 Collinsville Rd., East St. Louis, Ill. (H-Hvy)
 Madison Constr. Co., P. O. Box 222, Edwardsville, Ill. (H-Hvy)
 Marsch, Louis, Morrisonville, Ill. (H)
 Mass, H. H., Constr. Co., Main St., Algonquin, Ill. (H-Hvy)
 Mautz & Oren, Inc., 406-408 W. Jefferson St., Effingham, Ill. (H-Hvy)
 Maxon Construction Company, Inc., 131 N. Ludlow St., Dayton 2, Ohio (Hvy)
 McCalman Constr. Co., 619 Section St., P. O. Box 854, Danville, Ill. (H-Hvy)
 McCann & Co., Inc., Rm. 532, Reich Bldg., Springfield, Ill. (H-Hvy)
 McCarthy Improvement Co., 602 Kahl Bldg., Davenport, Iowa (H-Hvy)
 McMahan Illinois Corp., Kunkel Bldg., Watseka, Ill. (H-Hvy)
 Mitchell Contr. Co., 216 E. Madison St., Herrin, Ill. (H-Hvy-RR)
 Monmouth Stone Co., 521 S. 3d St., Monmouth, Ill. (B-H-Hvy)
 Moore Bros., Inc., 2000 St. Claire Ave., East St. Louis, Ill. (H-Hvy)
 Moritz, C. J., Inc., Box 598, Effingham, Ill. (H-Hvy-RR)
 O'Brien, Chas., & Son, 217½ Liberty St., Morris, Ill. (H-Hvy)
 O'Connor Constr. Co., Box 292, 610 Reisch Bldg., Springfield, Ill. (H-Hvy-RR)
 O'Connor, J. C., & Sons Co., Inc., 2104 Miner St., Fort Wayne 6, Ind. (H-Hvy)
 Olson, A., Constr. Co., 1225 Commercial St., Waterloo, Iowa (H-Hvy)
 Orr Constr. Co., 27 E. 19th Pl., Chicago Heights, Ill. (H-Hvy-RR)
 Potashnick, R. B., P. O. Box 205, Cape Girardeau, Mo. (H-Hvy)
 Powers-Thompson Constr. Co., 27 S. Chicago St., Joliet, Ill. (H-Hvy)
 Princeville Stone Co., Princeville, Ill. (H-Hvy)
 Quad City Constr. Co., Inc., 644 25th Ave., Rock Island, Ill. (H-Hvy)
 Regenhardt Constr. Co., 302 Himmelberger-Harrison Bldg., Cape Girardeau 1, Mo. (H-Hvy)
 Rieth-Riley Constr. Co., P. O. Box 477, Goshen, Ind. (H-Hvy)
 Rocho, Edw. M., Constr. Co., Inc., 418 2d National Bank Bldg., Freeport, Ill. (H-Hvy)
 Rockford Black Top Constr. Co., 1615 Westchester Dr., Rockford, Ill. (H)
 Rowe Constr. Co., 1523 W. Market St., Bloomington, Ill. (H-Hvy-RR)
 S. M. H. Constr. Co., 1500 N. Adams St., Peoria 3, Ill. (H-Hvy)
 Sangamo Constr. Co., P. O. Box 222, Springfield, Ill. (H-Hvy)
 Sankey Bros., Inc., 402 Illinois Bldg., Springfield, Ill. (H)
 Seneca Petroleum Co., Inc., 439 W. 33d St., Chicago 16, Ill. (H-Hvy)
 Shanks A., J., Constr. Co., 118½ E. Walnut St., Watseka, Ill. (H-Hvy)
 Shappert Engr. Co., E. Menominee & Blaine Sts., Belvidere, Ill. (H-Hvy)
 Simonds, E. T., Constr. Co., 202 W. Willow St., Carbondale, Ill. (H-Hvy)
 Stahl, J. W., Constr. Co., P. O. Box 485, Somonauk, Ill. (H-Hvy)
 Stephens, Edgar, Constr. Co., 216 10th St., Cairo, Ill. (B-Hvy-RR)
 Stevens & Klocke, 510 Lawrence Bldg., Sterling, Ill. (B-H-Hvy-RR)
 Stilfield, Ben K., Constr. Co., Inc., 517 12th St., Rock Island, Ill. (H-Hvy)
 Strunk Bros., Tiskilwa, Ill. (H-Hvy)
 Swords-McDougal Co., 1500 N. Adams St., Peoria 3, Ill. (H-Hvy-RR)
 Thompson Asphalt Co., P. O. Box 28, Madison, Ill. (H-Hvy)
 Tillman, G. E., Co., Inc., 702 N. Locust St., Centralia, Ill. (H-Hvy)
 Triangle Constr. Co., 480 N. Evergreen Ave., Kankakee, Ill. (H-Hvy)
 Tri-State Engr. Co., P. O. Box 615, Benton, Ill. (H-Hvy)
 Tritt Bros., Belleville National Bank Bldg., Belleville, Ill. (H-Hvy)
 Trompeter Constr. Co., 2428 4th St., Peru, Ill. (H-Hvy)
 Valley Bldrs., Inc., 400 W. 1st St., Spring Valley, Ill. (H-Hvy)
 Valley Engr. Co., Colson Bldg., 116½ W. Main St., St. Charles, Ill. (H-Hvy)
 Walker Constr. Co., 421 S. 21st St., Mattoon, Ill. (H-Hvy)
 Wetherby, J. P., Constr. Co., 1016 W. Superior, Ottawa, Ill. (H-Hvy)
 Whetzel Bros., 201 N. Walnut St., Champaign, Ill. (H-Hvy)
 Zimmerly Constr. Co., S. Marshall St., Paris, Ill. (H-Hvy)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

ILLINOIS—Continued
(d) SOUTHERN ILLINOIS
BUILDERS ASSOCIATION

President—John J. Keeley, 2030 State St., East St. Louis, Ill.
Secretary-Treasurer—C. M. Lomax, S. M. Wilson & Co., 1616 Cleveland Ave., P. O. Box 173, Granite City, Ill.
Telephone: Tri-City 6-3466

Altman, J. J., & Co., 1746½ State St., East St. Louis, Ill. (B)
 Barmac Constr. Co., Inc., P. O. Box 141, Chester, Ill. (B)
 Bauer Bros. Constr. & Supply Co., 424 Lebanon Ave., Belleville, Ill. (B-Hvy)
 Conduit Constr. Co., Inc., 2317 Tennessee Ave., St. Louis 4, Mo. (Hvy)
 Fruin-Colnon Constr. Co., 1706 Olive St., St. Louis 3, Mo. (B-Hvy-RR)
 Ganschietz, Ferd, 501 N. 18th St., East St. Louis, Ill. (B)
 General Constr. Co., Inc., 23d & Lincoln Ave., Granite City, Ill. (B-Hvy)
 Grabbe, H. A., Constr. Co., 409 Commercial Bldg., Alton, Ill. (B-Hvy)
 Hall, H. H., Constr. Co., 211 S. 15th St., East St. Louis, Ill. (B-Hvy)
 Hoeffken, M. Co. & Hoeffken Bros., Inc., N. 3d & W. B Sts., Belleville, Ill. (B-H-Hvy)
 Hursey, Clinton, Constr. Co., 1101A Missouri Ave., East St. Louis, Ill. (Hvy)
 Keeley Bros. Constr. Co., 4211 State St., East St. Louis, Ill. (H-Hvy)
 Keeley, John J., 2030 State St., East St. Louis, Ill. (B)
 Keeley, John J., Co., 2030 State St., East St. Louis, Ill. (B)
 Keeley, Jos. P., Constr. Co., 648 N. 42d St., East St. Louis, Ill. (B-H-Hvy)
 Latta, J. E., Constr. Co., Inc., 6609 Latta Pl., St. Louis 20, Mo. (B-Hvy)
 Mary Constr. Co., 1818 Broadway, East St. Louis, Ill. (B-Hvy)
 Moore Bros., Inc., 2000 St. Claire Ave., East St. Louis, Ill. (B)
 Murch-Jarvis Co., Inc., 718 Locust St., St. Louis, Mo. (B)
 R. & R. Constr. Co., 735 Park Dr., Alton, Ill. (B)
 Stephens, Edgar, & Sons, Inc., 216 10th St., Cairo, Ill. (B)
 Sternberg, G. H., & Co., 1609 Delmar Ave., Granite City, Ill. (B)
 Tarlton, G. L., Constr. Co., 5505 Dale Ave., St. Louis 10, Mo. (B-H-Hvy)
 Vollmar Bros. Constr. Co., Foot of Victor St., St. Louis 4, Mo. (B-Hvy)
 Wheatley, Geo. W., & Son, P. O. Box 603, Dupu, Ill. (B)
 Wilson, C. T., Constr. Co., 99 E. Grand Ave., St. Louis 7, Mo. (B)
 Wilson, S. M., & Co., 1616 Cleveland Ave., P. O. Box 173, Granite City, Ill. (B)
 Wolfe, M. H., & Co., Inc., 20th & Adams Sts., Granite City, Ill. (B)

Local Members

Evans Constr. Co., 1900 E. Washington St., P. O. Box 1521, Springfield, Ill. (B)
 Felmley-Dickerson Co., 603 Peoples Bank Bldg., Bloomington, Ill. (B)

Herlihy Mid-Continent Company, 135 S. La-Salle St., Chicago 3, Ill. (B-Hvy-RR)
 Jobst, V., & Sons, 1209 Lehmann Bldg., Peoria 2, Ill. (B)
 Simmons, J. L., Company, Inc., 2146 N. Woodford St., P. O. Box 69, Decatur 60, Ill. (B-Hvy)

13. INDIANA

(a) INDIANA HIGHWAY
CONSTRUCTORS, INC.

President—Mike Ryan, Ryan Constr. Corp., 800 E. Michigan St., Evansville 7, Ind.

Executive Secretary—W. M. Holland, 801 Roosevelt Bldg., Indianapolis 4, Ind.

Telephone: Lincoln 7547

Allen, G. H., 230 American Bank Bldg., Vincennes, Ind. (H)
 Asphalt Surfacing Co., 4200 E. 82d St., R.R. 13, Box 473, Indianapolis, Ind. (H)
 Babcock, W. C., Constr. Co., P. O. Box 237, Rensselaer, Ind. (H-Hvy)
 Berns Constr. Co., 312 E. Washington St., Indianapolis 4, Ind. (H)
 Bontrager Constr. Co., 618 W. Indiana Ave., Elkhart, Ind. (H)
 Brooks Constr. Co., 1123 Barthold St., Fort Wayne 7, Ind. (H)
 Calumet Paving Co., W. 96th St. & Zionsville Rd., Zionsville, Ind. (H-Hvy)
 Columbus Paving Co., P. O. Box 252, Columbus, Ind. (H)
 Dailey, L. W., Constr. Co., 1034 Oakland St., Fort Wayne 7, Ind. (H)
 DeBolt Constr. Co., Inc., P. O. Box 208, Richmond, Ind. (H)
 Dehner, John, Inc., 1206 Clark St., Fort Wayne 7, Ind. (H)
 Dougherty, A. L., Co., 20 N. Meridian St., #403, Indianapolis 4, Ind. (H)
 Dougherty, A. L., Overseas, Inc., 20 N. Meridian St., #403, Indianapolis 4, Ind. (H)
 Fauber Constr. Co., Inc., P. O. Box 496, Lafayette, Ind. (H)
 Feigel Constr. Corp., 800 E. Michigan St., Evansville 7, Ind. (H)
 Gast Constr. Co., P. O. Box 249, 216 S. Columbia St., Warsaw, Ind. (H)
 Gates, John R., 2410 Springfield Ave., Fort Wayne, Ind. (H)
 Goodwin Constr. Co., Inc., P. O. Box 157, Danville, Ind. (H)
 Gradle Bros., Inc., Carmel, Ind. (H)
 Grady Bros., Inc., 6101 College Ave., Indianapolis, Ind. (H)
 Gunsaulus, L. H., & Son, Kendallville, Ind. (H)
 Hart & Hart, P. O. Box 338, Providence, Ky. (H)
 Hartong & Co., 340 Sherwood Ct., LaGrange Park, Ill. (H)
 Harvey, Geo. R., & Son, Danville, Ind. (H)
 Hipkind Drainage Co., 1725 Winter St., Fort Wayne 4, Ind. (H)
 Kahl & Mahon, 402 N. Main St., Liberty, Ind. (H)
 Kelly, John F., P. O. Box 267, 34th St. & Fort Harrison Rd., Terre Haute, Ind. (H)
 King, Robt. H., 85 S. Washington St., Danville, Ind. (H)

Kruzick, Geo., Constr. Co., P. O. Box 87, Winamac, Ind. (H)
 Magaw, W. L., Hawkins Rd., P. O. Box 330, Richmond, Ind. (H)
 McCalman Constr. Co., 619 Section St., P. O. Box 854, Danville, Ill. (H-Hvy)
 McMahan Constr. Co., P. O. Box 378, Rochester, Ind. (H)
 Meitz-Spears-Dehner Co., Inc., 1212 Clark St., Fort Wayne 7, Ind. (H)
 Meshberger Bros. Stone Corp., P. O. Box 81, Linn Grove, Ind. (H)
 Middle West Roads Co., P. O. Box 30, Noblesville, Ind. (H)
 Moellering Constr. Co., Office & Yard—Engle Rd., P. O. Box 1168, Fort Wayne 1, Ind. (H-Hvy)
 Mohr Constr. Co., Inc., 1420 S. Union St., Kokomo, Ind. (H)
 Myers, Ralph, Constr. Corp., Salem, Ind. (H-Hvy)
 O'Connor, J. C., & Sons, Inc., 2104 Miner St., Fort Wayne 6, Ind. (H-Hvy)
 Olinger Constr. Co., P. O. Box 96, Olinger Bldg., Huntingburg, Ind. (H-Hvy)
 Phend & Brown, Milford, Ind. (H)
 Powers-Thompson Constr. Co., 27 S. Chicago St., Joliet, Ill. (H)
 Reed Constr. Co., Inc., 202½ N. Main St., Mishawaka, Ind. (H)
 Rieth-Riley Constr. Co., W. Madison St., P. O. Box 477, Goshen, Ind. (H-Hvy)
 Rock Road Constr. Co., 5915 N. Rogers Ave., Chicago 30, Ill. (H)
 Ruckman-Hansen, Inc., 3617 Leo Rd., Fort Wayne 8, Ind. (H)
 Ryan Constr. Corp., 800 E. Michigan St., Evansville 7, Ind. (H-Hvy)
 Schutt, R. L., Co., 120 E. Market St., Union Trust Bldg., Rms. 4 & 5, Indianapolis 4, Ind. (H)
 Sheehan Constr. Co., 205 Holliday Bldg., 241 E. Ohio St., Indianapolis 4, Ind. (H-Hvy)
 Smalley, D. R., & Sons, Inc., 426 W. Market St., Celina, Ohio (H)
 Smith & Johnson, Inc., P. O. Box 650, 1799 Kentucky Ave., Indianapolis 6, Ind. (H-Hvy)
 Stone City Constr. Co., Inc., 910 "R" St., Bedford, Ind. (H)
 Stuntz-Yeoman Co., Inc., Delphi, Ind. (H)
 Sweet, J. S., Co., R. R. 1, Cambridge City, Ind. (H)
 Tharp, Harold, & Son, Fountain City, Ind. (H)
 Thompson Constr. Co., Inc., 3840 Prospect St., Indianapolis 3, Ind. (H)
 Traylor Bros., Inc., Sta. B, Box 66, Evansville 12, Ind. (H)
 Tri-State Constr. Co., The, 3100 E. 56th St., Indianapolis 20, Ind. (H)
 Walsh & Ikeler, R. R. 2, Gary, Ind. (H)
 Wayne Paving, Inc., 1825 S. Anthony Blvd., Fort Wayne 4, Ind. (H)
 Weikel Constr. Co., Inc., The, Meyer Rd., R. R. #12, Fort Wayne, Ind. (H)
 White Constr. Co., The, 1735 Fullerton Ave., Chicago 14, Ill. (H)
 White, Wm. L., & Son, 400 N. 10th St., Terre Haute, Ind. (H)
 Wilson, J. L., 145 W. Mechanic St., Bloomfield, Ind. (H)
 Winslow Constr. Co., 508 N. Water St., Salem, Ind. (H)

A.G.C. DIRECTORY

INDIANA—Continued

(b) INDIANA GENERAL CONTRACTORS' ASSOCIATION

President—Harry D. Tousley, H. D. Tousley Co., Inc., 925 E. St. Clair St., Indianapolis 4, Ind.
Executive Secretary—Marshall D. Abrams, 1456 N. Delaware St., Indianapolis 2, Ind.
Telephone: Plaza 2382

Abraham, W. J., & Sons, Inc., 8th & Pershing Sts., Seymour, Ind. (B)
 Associated Bldrs., Inc., The, 608 Nichol Ave., P. O. Box 612, Anderson, Ind. (B)
 Bahre, Geo., Co., 1015 Southeastern Ave., Indianapolis 2, Ind. (B)
 Brandt Bros. & Co., 1925 Fletcher Ave., Indianapolis 3, Ind. (B)
 Bryant Co., Cincinnati St. & Pennsylvania R. R., P. O. Box 118, Franklin, Ind. (B)
 Cannon Constr. Co., Inc., 1913 Winfield Ave., Indianapolis 22, Ind. (B)
 Colvin, Leslie, 507 Board of Trade Bldg., 143 N. Meridian, Indianapolis 4, Ind. (B)
 Crabtree-Maule Corp., 529 N. W. 7th, Friends Box 33, Richmond, Ind. (B-Hvy)
 Cramer, E. F., 224 N. Alabama St., Indianapolis 4, Ind. (B)
 Drew, Jas. H., Corp., 503 Architects & Builders Bldg., Indianapolis 4, Ind. (B)
 Dunkin, W. R., & Son, 3220 W. 25th St., Anderson, Ind. (B)
 Dunlap & Co., Inc., 522 Jackson St., Columbus, Ind. (B)
 Fatout Bldg. Co., The, 3422 Winthrop Ave., Indianapolis 5, Ind. (B)
 Garriott, Jay A., P. O. Box 215, Bedford, Ind. (B)
 Geupel, Carl M., Constr. Co., 1919 N. Meridian St., Indianapolis 2, Ind. (B)
 Glaser, A. J., Co., Inc., P. O. Box 649, 401 S. Lincoln St., Muncie, Ind. (B)
 Glenroy Co., 450 S. Ritter Ave., Indianapolis 19, Ind. (B)
 Hanson, Frank W., 645 N. Davidson St., Indianapolis 2, Ind. (B)
 Harlos Constr. Co., 219 W. 4th St., Bloomington, Ind. (B)
 Huber, Hunt & Nichols, Inc., P. O. Box 128, Indianapolis 6, Ind. (B)
 Hunnicutt, A. R., Co., 2110 Spring St., P. O. Box 128, New Castle, Ind. (B)
 Juerling, Vincent H., & Sons, 1229 S. 9th St., Richmond, Ind. (B)
 Jungclauss, Wm. P., Co., Inc., 825 Massachusetts Ave., Indianapolis 4, Ind. (B)
 Krebay Constr. Co., 108 E. 9th St., Indianapolis 2, Ind. (B)
 Ostrom Constr. Co., Inc., 335 K. of P. Bldg., Indianapolis 4, Ind. (B)
 Reddington, J. D., 6160 N. Sherman Dr., Indianapolis 20, Ind. (B)
 Repp & Mundt, Inc., 1604 Cottage Ave., Columbus, Ind. (B)
 Shelby Constr. Corp., 1235 Jefferson Ave., P. O. Box 152, Shelbyville, Ind. (B)

Siegfried, Jos. E., 409 Perrin Ave., Lafayette, Ind. (B)
 Simmons, J. L., Company, Inc., 12th Fl., Inland Bldg., Indianapolis 4, Ind. (B-Hvy)
 Snyder, Lawrence J., Corp., 110 N. Elm St., P. O. Box 772, Muncie, Ind. (B)
 Stackhouse, A. V., Co., 2611 Winthrop Ave., Indianapolis 5, Ind. (B)
 Stone, L. L., Inc., 8015 E. 46th St., P. O. Box 252, Lawrence 26, Ind. (B-Hvy)
 Tousley, H. D., Co., Inc., 925 E. St. Clair St., Indianapolis 4, Ind. (B)
 Wagner, Chas. E. W., Co., Inc., 430 S. 12th St., Richmond, Ind. (B)
 Wilhelm, F. A., 3914 Prospect St., Indianapolis 3, Ind. (B)

(Calumet Division)

Adinolfi, John A., 2236 W. 11th Ave., Gary, Ind. (B)
 Becker, Peter, P. O. Box 215, Calumet City, Ill. (B)
 Clark, Roy C., 804 E. Chicago Ave., East Chicago, Ind. (B-Hvy)
 Foster, J. M., & Co., 5711 W. 5th Ave., P. O. Box 622, Gary, Ind. (B-Hvy)
 General Constr. Co. of Michigan City, Inc., 416 Franklin St., Michigan City, Ind. (B)
 Gerometta Constr. Co., 857 Virginia St., Gary, Ind. (B)
 Howells, Prosser, 5031 Broadway, Gary, Ind. (B)
 Larson-Danielson Constr. Co., Inc., 302 Tyler St., La Porte, Ind. (B)
 Olney, H. B., Inc., 1202 E. Chicago Ave., East Chicago, Ind. (B-Hvy)
 Rahn, John F., Inc., 500 W. 150th St., East Chicago, Ind. (B-Hvy)
 Rowley, Fred C., & Sons, Inc., 4732 Calumet Ave., Hammond, Ind. (B-H-Hvy-RR)
 Rueth, Leo, & Sons, Inc., 1050 Cherry St., Hammond, Ind. (B)
 Schumaker Constr. Co., E. Michigan at Warne Rd., Michigan City, Ind. (B-Hvy-RR)
 Superior Constr. Co., 1800 E. 7th Ave., P. O. Box 630, Gary, Ind. (B)
 Swenson Carlson Bldrs., Inc., Cline & Chicago Ave., P. O. Box 330, East Chicago, Ind. (B)
 Tonn & Blank, Inc., 104 N. Franklin St., Michigan City, Ind. (B)

(Fort Wayne Division)

Buesching Bros. Constr. Co., 219 E. Berry St., Fort Wayne 2, Ind. (B-Hvy)
 Bunger, Harry, & Son, Cromwell, Ind. (B)
 Hagerman Constr. Corp., 403 Strauss Bldg., Fort Wayne 2, Ind. (B)
 Indiana Constr. Co., Inc., 201 Ft. Wayne Bank Bldg., Fort Wayne 2, Ind. (B)
 Irmscher, Max, & Sons, Inc., 1113 Ft. Wayne Bank Bldg., Fort Wayne 2, Ind. (B)
 Schenkel, Wm. P., & Sons, 1120 St. Mary's Ave., Fort Wayne 7, Ind. (B)
 Sheets, W. A., & Sons, Inc., 1057 Osage St., P. O. Box 119, Fort Wayne 1, Ind. (B)
 Wermuth, Inc., 1036 St. Mary's Ave., Fort Wayne 7, Ind. (B-Hvy)

(South Bend Division)

Christman, H. G., Constr. Co., Inc., 850 Fellows St., South Bend 24, Ind. (B)
 Hickey, Thos. L., Inc., 712 N. Niles Ave., South Bend 22, Ind. (B)
 Reinke, Carl J., & Sons, 1522 W. Ford St., South Bend 19, Ind. (B)
 Schumacher, Peter, & Sons, Inc., 321 S. Spring St., Mishawaka, Ind. (B)
 Sollitt Constr. Co., Inc., 301 S. Columbia St., South Bend 24, Ind. (B)

(Terre Haute Division)

Cutshall, J. M., & Son, Riddell National Bank Bldg., Brazil, Ind. (B)
 Garmong, C. H., & Son, 1201 Crawford St., Terre Haute, Ind. (B)
 Johnson, Drake & Piper, Inc., 112 N. 7th St., P. O. Box 595, Terre Haute, Ind. (B)
 Kretz, John H., 409 Center St., Washington, Ind. (B)
 Roehm Bros., Inc., 30½ N. 5th St., Terre Haute, Ind. (B)
 Sanford, W. H., Corp., 306 N. 11th St., P. O. Box 297, Terre Haute, Ind. (B)
 Snyder Constr. Co., Inc., 1900 Chestnut St., Vincennes, Ind. (B)

(Wabash Valley Division)

Barnes, Jas. I., Constr. Co., Barnes Bldg., P. O. Box 16, Logansport, Ind. (B)
 Bowman Constr. Co., Inc., 1127 S. Branson St., Marion, Ind. (B)
 Doran, A. L., Constr. Co., R. R. #4, Peru, Ind. (B)
 Harrell Bros., 901½ W. 3d St., Marion, Ind. (B)
 Kemmer, A. E., Box 375, 3d & Brown Sts., Lafayette, Ind. (B)
 Kettelhut, K. H., 70-B Lafayette Loan & Trust Bldg., Lafayette, Ind. (B)
 Mayfield Constr. Co., 1311 N. Ann St., Kokomo, Ind. (B)
 Price & Price, Inc., 318 Ferry St., Lafayette, Ind. (B)
 Pugh, John T., R. R. #1, Rochester, Ind. (B)
 Wolf Constr. Co., 613 W. Market St., Logansport, Ind. (B)

(c) EVANSVILLE CHAPTER

President—Chas. Christen, Bauer Bros. Constr. & Supply Co., 522 Market St., Evansville, Ind.
Executive Secretary—Albert J. Sweet, 1204 1st Ave., Evansville 10, Ind.
Telephone: 3-9129

Aalco Constr. Co., 1171 Diamond Ave., Evansville, Ind. (B)
 Anderson & Loer, 410 W. Iowa St., Evansville 11, Ind. (B)
 Anderson & Veatch, Inc., 223 S. E. 8th St., Evansville 9, Ind. (B)
 Bauer Bros. Constr. & Supply Co., 522 Market St., Evansville, Ind. (B)
 Clark Constr. Co., 1919 Parrish Ave., Owensboro, Ky. (B)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

INDIANA—Continued

Feigl Constr. Corp., 800 E. Michigan St., Evansville 7, Ind. (B-H-Hvy)
 Murphy, Allan, Constr., Box 176, Evansville, Ind. (B)
 P & H Constr. Co., Inc., 205 E. Illinois St., Evansville, Ind. (B-Hvy)
 Peyronnin Constr. Co., 209 E. Division St., Evansville, Ind. (B)
 Rust Constr. Corp., 1301 E. Michigan St., Evansville 2, Ind. (B)
 Ryan Constr. Corp., 800 E. Michigan St., Evansville 7, Ind. (B-H-Hvy)
 Thorp Constr. Co., Inc., 2520 Boonville Hwy 62, P. O. Box 22, Evansville, Ind. (B)
 Three A Bldrs., Inc., 1270 Maxwell Ave., Evansville, Ind. (B)
 Traylor Bros. Inc., Box 66, Sta. B., Evansville, Ind. (B-H-Hvy)
 Williams, R. R., 1728 Moseley St., Owensboro, Ky. (B)

14. IOWA

(a) ASSOCIATED GENERAL CONTRACTORS OF IOWA

President—Kenneth W. Graves, Graves Bros., Co., Melvin, Iowa
Executive Secretary—O. W. Crowley, 707 Keo Way, Des Moines 9, Iowa
Telephone: 4-6287

Abramson, John P., Constr. Co., 720 Savings & Loan Bldg., Des Moines 9, Iowa (B-H-Hvy-RR)
 Alexander & Repass, 309 Securities Bldg., Des Moines 9, Iowa (H-Hvy-RR)
 Andersen Contr. Co., 1225 Stephenson Way, Des Moines 14, Iowa (H)
 Anderson, B. L., 327 Guaranty Bldg., Cedar Rapids, Iowa (H)
 Angus Coal Mining Co., Box 401, Oskaloosa, Iowa (H)
 Armstrong, J. D., Co., Inc., 1606 Grand, Ames, Iowa (H)
 Atlantic Constr. Co., Inc., 3203 Forest Ave., Des Moines 11, Iowa (H)
 Baker, Myron, P. O. Box 61, Gilmore City, Iowa (H)
 Barker-Rose Constr. Co., 109 S. 6th St., Marshalltown, Iowa (H)
 Benderoff, V. C., S. E. 5th & Hartford, Des Moines 15, Iowa (H)
 Beu & Sons Co., P. O. Box 305, Grundy Center, Iowa (H)
 Blunk, J. C., Constr. Co., 524 W. Main St., Ottumwa, Iowa (H)
 Booth & Olson, Inc., Insurance Exchange Bldg., Box 304, Sioux City 2, Iowa (H-Hvy)
 Boswell, Robt. L., 218 Insurance Exchange Bldg., Sioux City, Iowa (H)
 Boyette, M. E., Constr. Co., Kensett, Iowa (H)
 Braden Constr. Co., Griswold, Iowa (H)
 Brogan Constr. Co., 321 Locust St., Des Moines 9, Iowa (H)
 Brueck Constr. Co., Battle Creek, Iowa (H)
 Burch Constr. Co., Washington Bldg., Madison 3, Wis. (H)
 Burch, R. B., Inc., 1718 Park Ave., S. E., Cedar Rapids, Iowa (H-Hvy)
 Cameron, Joyce & Co., 19 S. 7th St., Keokuk, Iowa (H-Hvy)
 Carlson Constr. Co., Box K, Essex, Iowa (H)
 Carlson Constr. Co., c/o O. H. Johnson, 656 N. 59th St., Omaha, Nebr. (H)
 Carlson, Fred, Co., Inc., Decorah, Iowa (H)
 Central Constr. Co., Indianola, Iowa (H)
 Central Engr. Co., 2531 Rockingham Rd., Davenport, Iowa (B-H-Hvy)
 Central States Bridge Co., 1022 Trust Bldg., Lincoln, Nebr. (Hvy)
 Christensen Bros., 3011 Virginia St., Sioux City 18, Iowa (H)
 Clark Bros. Constr. Co., Hinton, Iowa (H)
 Clinton Bridge Corp., 101 S. 2d St., Clinton, Iowa (H-Hvy)
 Clinton Engr. Co., 1323 N. 2d St., Clinton, Iowa (H-Hvy)
 Coffeen, A. R., Co., 906 S. Mill St., Decorah, Iowa (B-H-Hvy)
 Cohron, A. M., & Son, 6110 S. W. 12th St., Des Moines, Iowa (B-H)
 Cole, Ben, & Son, 114 Clark Ave., Ames, Iowa (B-H-Hvy)
 Concrete Materials & Constr. Co., Box 790, 405 Granby Bldg., Cedar Rapids, Iowa (H)
 Condon-Cunningham Company, 4229 Lafayette Ave., Omaha 3, Nebr. (H-Hvy-RR)
 Cook, Ray, Constr. Co., Ames, Iowa (H)
 Costigan, J. C., Elkader, Iowa (B-H)
 Council Bluffs Constr. Co., 106 S. 17th St., Box 646, Council Bluffs, Iowa (H)
 Cunningham-Reis Co., 1020 Liberty Bldg., Des Moines 9, Iowa (H-Hvy-RR)
 Curphy, Bill, Co., 448 Insurance Exchange Bldg., Des Moines, Iowa (H-Hvy-RR)
 Davis Constr. Co., 516 E. Jefferson, Winterset, Iowa (H)
 Des Moines Steel Co., 421 S. W. 4th St., Des Moines 4, Iowa (H-Hvy)
 Diesch Constrs., 204 Bertch, Waterloo, Iowa (H)
 Dilts, G. E., 322 S. Taylor St., Mason City, Iowa (H)
 Dixon Bros. Co., Correctionville, Iowa (H)
 Dobson Bros. Constr. Co., 512 1st National Bank Bldg., Lincoln, Nebr. (H-Hvy)
 Duesenberg, E. M., Inc., Clear Lake, Iowa (H)
 Duvall, P. K., Inc., Logan, Iowa (H)
 Easton Constr. Co., 703 Northwestern Ave., Ames, Iowa (H)
 Eblen, Orville, Atlantic, Iowa (H)
 Ekdahl, Hilding, 613 N. 8th St., Ft. Dodge, Iowa (H)
 Everds Bros., Box 374, Algona, Iowa (H)
 Everds Constr. Co., Estherville, Iowa (H)
 Falk, L. R., St. Ansgar, Iowa (H)
 Ferguson-Diehl, Inc., Jefferson, Iowa (H-Hvy)
 Flinn Paving Co., 210 S. 18th St., Omaha, Nebr. (H)
 Gillotti Constr. Co., 1405 S. E. 1st St., Des Moines 15, Iowa (H-Hvy)
 Gjellefald Constr. Co., Forest City, Iowa (Hvy)
 Godbersen-Smith Constr. Co., Ida Grove, Iowa (B-Hvy)
 Gould Constr. Co., The, 507 Security Bldg., Davenport, Iowa (Hvy-RR)
 Graves Bros. Co., Melvin, Iowa (H)
 Green Constr. Co., 321 Locust St., Des Moines 9, Iowa (H-Hvy)
 Green, Ralph, & W. L. Groesbeck, 321 Locust St., Des Moines 9, Iowa (H-Hvy)
 Haegg Constr. Co., Box 769, Cedar Rapids, Iowa (H)
 Hahn Constr. Co., 4103 1st St., Des Moines, Iowa (H-Hvy)
 Hanson Constr. Co., 106 W. 17th, Washington, Iowa (H-Hvy)
 Hargrave Constr. Co., 2424 Bever Ave., S. E., Cedar Rapids, Iowa (H)
 Heckman-Reynolds Co., Charles City, Iowa (H)
 Hoak Constr. Co., Box 37, West Des Moines, Iowa (Hvy)
 Hobe Engr. Co., 2121 E. 4th St., Sioux City 19, Iowa (H)
 Holland Bros. Constr. Co., Inc., Decorah, Iowa (H)
 Horrabin, Wm., Contr. Co., 15 E. College, Iowa City, Iowa (H)
 Hymans, John, & Sons, Hull, Iowa (H)
 Iowa Bridge Co., Box 7, Highland Park Sta., Des Moines, Iowa (Hvy)
 Iowa Road Bldg. Co., Box 409, Fairmont, Minn. (H)
 J-K Constr. Co., Milton, Iowa (H-Hvy)
 Jensen Constr. Co., 1901 Easton Blvd., Des Moines 16, Iowa (H-Hvy)
 Jensen & Krage, 2220 Hawkeye Dr., Sioux City 19, Iowa (H-Hvy)
 Johnson, M. L., 112 32nd St. Dr., S. E., Cedar Rapids, Iowa (H)
 Johnston, Wagner, Constr. Co., 622 Insurance Exchange Bldg., Sioux City 13, Iowa (H)
 Kaser Constr. Co., 3111 Ingersoll Ave., Des Moines 12, Iowa (H)
 Kehe Constr. Co., Box 324, Waverly, Iowa (B-Hvy)
 Kiewit, Peter, Sons' Co., 1024 Omaha National Bank Bldg., Omaha, Nebr. (B-H-Hvy-RR)
 Koss Construction Company, 205 Farm Bureau Bldg., Des Moines 9, Iowa (H-Hvy-RR)
 Lee & Johnson, Inc., 15 Insurance Exchange Bldg., Sioux City 13, Iowa (H)
 Leonhard, J. T., Constr. Co., Columbus Junction, Iowa (H)
 Linnan, W. B., Pocahontas, Iowa (H)
 Lippert Bros., Inc., 827 Monona St., Boone, Iowa (B-Hvy)
 Lowe Constr. Co., Box 58, Marion, Iowa (H)
 Lundeen Constr. Co., Montezuma, Iowa (H)
 Lytle, C. F., Co., Box 206, Sioux City, Iowa (H-Hvy-RR)
 Mathis, A. F., 205 4th St., West Des Moines, Iowa (Hvy)
 McCarthy Improvement Co., 602 Kahl Bldg., Davenport, Iowa (H-Hvy)
 McGuire, M. T. & John T., Algona, Iowa (H)
 McNeill, J. W., Constr. Co., 4509 3d Ave., Sioux City 13, Iowa (H)
 Melberg, Amos, 316 19th St., S. E., Cedar Rapids, Iowa (H)
 Mickle & Ross Constr. Co., Box 541, Newton, Iowa (H)
 Midwest PreCote Co., 7600 E. 17th St., Kansas City 3, Mo. (H)

A.G.C. DIRECTORY

IOWA—Continued

- Miller, John G., Constr. Co., 222 W. Mullan Ave., Waterloo, Iowa (B)
 Missouri Valley Limestone Co., Inc., 516 Paramount Bldg., Des Moines 9, Iowa (H)
 Moser, F. A., Farmersburg, Iowa (H)
 Mott Constr. Co., 308 W. Prairie St., Center-ville, Iowa (Hvy)
 Myers Bros., Ft. Atkinson, Iowa (H-RR)
 Neumann, Arthur H., & Bros., Inc., 514 Hubbell Bldg., Des Moines 9, Iowa (B)
 Nichols & Schrader, Charlotte, Iowa (H)
 Nielsen, Wilbur, Co., Blencoe, Iowa (H-Hvy)
 Noel, Harry, 1414 Grand Ave., Spencer, Iowa (H)
 Norris Constr. Co., 311 S. Wapello, Ottumwa, Iowa (H)
 North Central Constr. Co., Hampton, Iowa (H)
 Olson, A., Constr. Co., 1225 Commercial St., Waterloo, Iowa (H)
 Ostermann Constr. Co., Box 152, Jefferson, Iowa (H)
 Ostermann, Gus, & Sons, Ocheyedan, Iowa (H)
 Peterson Bros., Laurens, Iowa (H)
 Pittsburgh-Des Moines Steel Co., 1015 Tuttle St., Des Moines 9, Iowa (H-Hvy)
 Quad City Constr. Co., Inc., 644 25th Ave., Rock Island, Ill. (Hvy)
 Quealy Constr. Co., 650 S. 16th St., Ft. Dodge, Iowa (Hvy-RR)
 Sani Constr. Co., 102 Forest Ave., Des Moines 14, Iowa (H)
 Schildberg Constr. Co., Greenfield, Iowa (H)
 Schmidt Constr. Co., Winfield, Iowa (H)
 Schroeder, H. F., & Sons, Arcadia, Iowa (H)
 Seothorn Constr. Co., Cherokee, Iowa (H)
 Shirey, C. W., 84 W. Mullan, Waterloo, Iowa (H-Hvy)
 Shirley Constr. Co., Inc., 1103 W. O. W. Bldg., Omaha 2, Nebr. (H)
 Spencer, E. B., Constr. Co., 2840 W. 4th St., Waterloo, Iowa (H)
 Staker, L. M., Box 347, Ames, Iowa (H)
 States Constr. Co., 3018 Kingman Blvd., Des Moines 11, Iowa (H)
 Strother, J. P., Constr. Co., Eldon, Iowa (H)
 Strother & Riehm, Inc., Eldon, Iowa (H)
 Taylor, C. B. & M. R., Decorah, Iowa (H-Hvy)
 Torvik & Sons Constr. Co., 209 5th Ave., Decorah, Iowa (H)
 Upham, Dale, Box 184, West Union, Iowa (H)
 Van Buskirk, Ira, & Sons, Hawarden, Iowa (H)
 Van Dusseldorp, Eben, 724 E. Division St., Colfax, Iowa (H)
 Weaver Constr. Co., P. O. Box 704, Iowa Falls, Iowa (H)
 Weaver, M. O., Inc., 5707 University Ave., Des Moines, Iowa (H)
 Weitz Co., Inc., The, 406 Fleming Bldg., Des Moines 9, Iowa (B)
 Welden Bros., Iowa Falls, Iowa (H-Hvy-RR)
 Western Contracting Corporation, 400 Benson Bldg., Sioux City 15, Iowa (H-Hvy-RR)
 Western Engr. Co., Box 350, Harlan, Iowa (H)
 White, J. C., Co., 2120 Harding Rd., Des Moines, Iowa (H)
 Williams Constr. Co., 1509 W. 19th St., Des Moines 14, Iowa (H)
 Willman Constr. Co., The, Hwy. #150, No., Box 1088, Cedar Rapids, Iowa (H-Hvy)
 Wilson, Robt. M., Guttenberg, Iowa (B-Hvy)
(b) MASTER BUILDERS OF IOWA
President—Gordon F. Wickes, Wickes Engr. & Constr. Co., 1441 2d Ave., Des Moines 14, Iowa
Executive Secretary—Walter W. Moeller, 110 Hubbell Bldg., Des Moines, Iowa
Telephone: 8-1081
 Allied Engr. Co., Atlantic, Iowa (B)
 Betts & Beer Constr. Co., Adair, Iowa (B)
 Bey Constr. Co., 1226 Elmhurst Dr., N. E., Cedar Rapids, Iowa (B)
 Blahnik & Berger, 303 2d Ave., S. E., Cedar Rapids, Iowa (B)
 Breiholz, W. H., 1063 14th St. Pl., Des Moines, Iowa (B)
 Bride & Didier, 1520 25th St., Sioux City, Iowa (B)
 Castle, E. B., & Son, 231 12th St., Marion, Iowa (B)
 Christensen Constr. Co., 839 3d Ave., Sibley, Iowa (B)
 Clinton Engr. Co., 1323 N. 2d St., Clinton, Iowa (B)
 Coffeen, A. R., Co., 906 S. Mill St., Decorah, Iowa (B)
 Cohron, A. M., & Sons, 6110 S. W. 12th St., Des Moines 15, Iowa (B)
 Conlon Constr. Co., 240 Railroad Ave., Dubuque, Iowa (B)
 Coomer, R. M., Constr. Co., 523 Insurance Exchange Bldg., Sioux City, Iowa (B)
 Cowan, H. J., Contr. & Bldr., Algona, Iowa (B)
 Darner, Phil, 231 W. Main St., Ottumwa, Iowa (B)
 Davey & Moen, 604 Brick & Tile Bldg., Mason City, Iowa (B)
 De Stigter Bros., Box 336, Sioux Center, Iowa (B)
 Dimmitt Constr. Co., Box 287, Shenandoah, Iowa (B)
 Drape Constr. Co., 212 2d St., N. W., Waverly, Iowa (B)
 Edson, R. C., 701 Northwestern, Storm Lake, Iowa (B)
 Epperson & Co., Inc., 1st & Pleasant Sts., Box 327, Sumner, Iowa (B)
 Fagre Constr. Co., 1201 3d Ave., So., Esterville, Iowa (B)
 Fell & Anton, 219 W. Mullan, Waterloo, Iowa (B)
 Forest City Improvement Co., Forest City, Iowa (B)
 Fry, Dean, Constr. Co., 1030 S. Dittmer, Davenport, Iowa (B)
 Garmer & Stiles Co., 519 14th St., Des Moines, Iowa (B)
 Gethmann Constr. Co., Inc., Gladbrook, Iowa (B)
 Grabau, R. H., Constr. Co., P. O. Box 12, Boone, Iowa (B)
 Grosz, M. J., Constr. Co., 1813 9½ Ave., No., Ft. Dodge, Iowa (B)
 Hansen, Arthur V., Co., Inc., 1521 Cherry Lane, P. O. Box 84, Cedar Falls, Iowa (B)
 Hansen, Chris, Constr. Co., 1615 E. 7th St., Sioux City 19, Iowa (B)
 Haring, Daniel, Co., Inc., 7 6th Ave., So., Clinton, Iowa (B)
 Henkel Constr. Co., 525 9th St., S. E., P. O. Box 149, Mason City, Iowa (B)
 Hersom, C. L., Laurens, Iowa (B)
 Hoffman Bros., 405 5th Ave., S. W., Independence, Iowa (B)
 Holtze, H. S., Constr. Co., 2121 E. 4th St., Sioux City 19, Iowa (B)
 Jackson Constr. Co., 2805 W. Main St., Emmetsburg, Iowa (B)
 Jacobson, Con. Co., 103 S. 1st, Marshalltown, Iowa (B)
 Johnson, B. A., Box 186, Indianola, Iowa (B)
 Jorgensen, O., & Sons, 1014 Roosevelt St., Clinton, Iowa (B)
 Jorstad, John, 2907 Grandview, Sioux City, Iowa (B)
 K-M Constr. Co., 1692 Garfield Ave., Dubuque, Iowa (B)
 Kepp, W. A., & Sons Co., P. O. Box 166, Orange City, Iowa (B)
 Klinger, W. A., Co., 2015 E. 7th St., P. O. Box 1768, Sioux City 15, Iowa (B)
 Klise Constr., 1719½ State St., Bettendorf, Iowa (B)
 Knudson, Wm., & Sons, 608-610 Flynn Bldg., Des Moines 9, Iowa (B)
 Kramme, C. J., 2224 2d Ave., No., Ft. Dodge, Iowa (B)
 Kucharo & Assocs., Inc., 225 Jewett Bldg., Des Moines, Iowa (B)
 Larsen, C. C., & Sons, 10 N. Main St., Council Bluffs, Iowa (B)
 Lippert Bros., Inc., 827 Monona St., Boone, Iowa (B)
 Lippert Constr. Co., Oelwein, Iowa (B)
 Loomis Bros., 509½ 3d Ave., S. E., Cedar Rapids, Iowa (B)
 Lovejoy Constr. Co., 1118 Mulberry St., Des Moines 9, Iowa (B)
 Martineau Constr. Co., 605 Fairview Ave., Muscatine, Iowa (B)
 Mattson, W. A., 2600 West Ave., Burlington, Iowa (B)
 McCorkle, Paul, Constr. Co., Sac City, Iowa (B)
 McCreedy Constr. Co., 20 S. Van Buren, Iowa City, Iowa (B)
 Mildenstein, Max, 1714 E. Ave., N. E., Cedar Rapids, Iowa (B)
 Miller, John G., Constr. Co., 222 W. Mullan Ave., Waterloo, Iowa (B)
 Morehead Constr. Co., 223 Dows Bldg., Cedar Rapids, Iowa (B)
 Mueller Constr. Co., Rm. 15, Woodbury Bldg., Marshalltown, Iowa (B)
 Mulford, Ben, Box 543, Bradford, Iowa (B)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

IOWA—Continued

Nelson, Carl A., & Co., Inc., 1815 Des Moines Ave., Box 532, Burlington, Iowa (B)
 Neumann, Arthur H., & Bros., Inc., 514 Hubbell Bldg., Des Moines 9, Iowa (B)
 Olesen, Jens, & Sons Constr. Co., 321 W. 18th St., Box 575, Waterloo, Iowa (B)
 Osterling Constr. Co., Inc., 601 E. Main St., Cherokee, Iowa (B)
 Park, Paul, Co., W. 5th & Railroad, Storm Lake, Iowa (B)
 Patton, R. L., Constr. Co., 1824 Blondeau, Keokuk, Iowa (B)
 Paulson, O. F., Constr. Co., 401 Iowa Theatre Bldg., Cedar Rapids, Iowa (B)
 Peterson, C. A., & Sons, 217 N. Union St., Rock Rapids, Iowa (B)
 Priestner Constr. Co., 1117 Davenport Bank Bldg., Davenport, Iowa (B)
 Reimer, C. F., Constr. Co., Inc., P. O. Box 12, Marshalltown, Iowa (B)
 Rinderknecht, R. W., Co., Inc., 113 F Ave., N. W., Cedar Rapids, Iowa (B)
 Ringland-Johnson, Inc., 202 Cooper Bldg., Des Moines, Iowa (B)
 Schaefer, Henry R., Co., 1326 W. 3d St., Davenport, Iowa (B)
 Smith Constr. Co., Inc., 512 Ave. G, Ft. Madison, Iowa (B)
 Sparks Constr. Co., 222 High Ave., E., Oskaloosa, Iowa (B)
 Spencer Constr. Co., Box 590, Spencer, Iowa (B)
 Stark, Don, Co., Inc., 400 E. Mill St., P. O. Box 576, Ottumwa, Iowa (B)
 Stolz, R. A., Constr. Co., 101 N. Locust Ave., New Hampton, Iowa (B)
 Stone Constr. Co., 718 Sumner Ave., Humboldt, Iowa (B)
 Terrell Constr. Co., 2607 Logan, Des Moines, Iowa (B)
 Thompson, Jas., & Sons, 222 E. 3d St., Ames, Iowa (B)
 Tunnicliff Constr. Co., 3429 Miller St., Box 177, Davenport, Iowa (B)
 Tusant Constr. Co., 1239 Maine St., Des Moines, Iowa (B)
 Vawter, Fane F., & Co., 207 9th St., Des Moines, Iowa (B)
 Walker, C. Glenn, Co., 515 2d Ave., So., Ft. Dodge, Iowa (B)
 Wayman, W. M., Constr. Co., 320 Reddington Ave., Cherokee, Iowa (B)
 Weitz Co., Inc., The, 406 Fleming Bldg., Des Moines 9, Iowa (B)
 Wickes Engr. & Constr. Co., 1441 2d Ave., Des Moines 14, Iowa (B)
 Wildes Constr. Co., 533 Park Rd., Waterloo, Iowa (B)
 Wildman, R. H., Co., 211 Kirkwood Ave., Iowa City, Iowa (B)
 Willy Constr. Co., 2160 Central Ave., Dubuque, Iowa (B)
 Wiltgen Constr. Co., P. O. Box 502, LeMars, Iowa (B)
 Wood, Earl R., Ainsworth, Iowa (B)
 Wood, Milo, & Son, W. 4th St., So., R. R. #4, Newton, Iowa (B)
 Zitterell-Mills Co., 607 Prospect St., Webster City, Iowa (B)
 Zwack, Anton, Inc., 1301 Central Ave., Dubuque, Iowa (B)

15. KANSAS

(a) KANSAS CHAPTER, BUILDERS DIVISION

President—Frank E. Blaser, Frank E. Blaser Bldg. Co., 430 N. Rock Island, Wichita, Kans.
Manager & Executive Secretary—Kenneth R. Lewis, Suite 409, National Reserve Bldg., Topeka, Kans.
Telephone: 3-1814

Armogost, Walter, Constr. Co., 519 S. Broadway, Suite 10, Wichita, Kans. (B)
 Baumann, Geo. E., 713 E. Austin, Nevada, Mo. (B)
 Bennett Constr. Co., 114 Taylor St., Topeka, Kans. (B-Hvy)
 Blaser, Frank E., Bldg. Co., 430 N. Rock Island, Wichita, Kans. (B)
 Borden, Val, Constr. Co., P. O. Box 883, Salina, Kans. (B)
 Bowers Constr. Co., Inc., 627 College Ave., Topeka, Kans. (B)
 Brenner Constr. Co., Inc., 815 W. 2d, Wichita, Kans. (B)
 Bushoom & Rauh, 109 E. Iron Ave., Salina, Kans. (B)
 Casson Constr. Co., 603 Topeka Blvd., Topeka, Kans. (B)
 Constant Constr. Co., Inc., 2d & Perry, P. O. Box 126, Lawrence, Kans. (B-Hvy)
 Cowan, C. J., Constr. Co., Inc., 1150 Oakley, Topeka, Kans. (B)
 Dalton Constr. Co., 220½ W. 4th St., Joplin, Mo. (B)
 Davidson, Forest R., Constr. Co., P. O. Box 388, Norton, Kans. (B)
 Dondlinger & Sons Constr. Co., 1206 E. Lincoln, Wichita 1, Kans. (B)
 Douglas Constr. Co., 510 E. 15th St., Topeka, Kans. (B)
 Eby, Martin K., Constr. Co., Inc., 610 N. Main, Wichita 5, Kans. (B)
 English, N. F., Constr. Co., Inc., 601 E. 2d St., Hutchinson, Kans. (B)
 Fessler, Frank, 155½ N. Santa Fe, Salina, Kans. (B)
 Frank, J. S., 227 S. 5th St., Salina, Kans. (B)
 Frankenfeld Constr. Co., 1012½ Main St., Winfield, Kans. (B)
 Gehring, F. P., 522 Woodlawn Ave., P. O. Box 218, Atchison, Kans. (B)
 Green, B. A., Constr. Co., Inc., P. O. Box 25, Lawrence, Kans. (B)
 Green, Mont J., Ulrich Bldg., Manhattan, Kans. (B)
 Hahner & Foreman, Inc., 121 N. Waco, Wichita, Kans. (B)
 Hill, Douglas G., Inc., 1100 Quincy, Salina, Kans. (B)
 Hubbard, Roy, Constr. Co., Inc., 117-127 E. 6th, Junction City, Kans. (B)
 Jayhawk Constr. Co., Inc., 812 Adams St., Topeka, Kans. (B)
 Jensen & Ridge, Box 1918, Wichita 1, Kans. (B)
 Johnson Bros. Constr. Co., 1200 Park St., P. O. Box 44, Salina, Kans. (B)
 Kaaz, Julius E., Jr., 716 Cherokee, Leavenworth, Kans. (B)

Lundgren, J. A., & Son, 213 Jackson St., Topeka, Kans. (B)
 Messenger, A., Lbr. & Milwk. Constr. Co., The, 822 E. 4th St., Pittsburg, Kans. (B)
 Milligan, O. D., Constr. Co., 806 N. 3rd St., Box 706, Manhattan, Kans. (B)
 Mitchell, E. J., Constr. Co., 117 W. Harvey Ave., Wellington, Kans. (B)
 Moreland Constr. Co., 606 Burton, Wichita 7, Kans. (B)
 Neely, John C., Constr. Co., 120 S. Topeka Ave., Wichita, Kans. (B)
 Noland Constr. Co., 1302 1st St., Dodge City, Kans. (B)
 Rinner, George, Constr. Co., Inc., 4th & N. Lane, Shorey, Topeka, Kans. (B)
 Sanneman Bros. Constr. Co., General Delivery, Pauline, Kans. (B)
 Sell, F. H., Constr. Co., 422 N. Washington, Wichita, Kans. (B)
 Senne, George, & Co., P. O. Box 964, Topeka, Kans. (B)
 Settle, Robt. E., 1946 Webster, Topeka, Kans. (B)
 Smith Bros. Contrs., 305 Cherokee, Leavenworth, Kans. (B)
 Soderberg, A. W., Constr. Co., 910 E. Indianapolis, P. O. Box 843, Wichita 1, Kans. (B)
 Stehwien, Boyd E., 116 W. Fulton St., Garden City, Kans. (B)
 Vollmer, Clarence E., Constr. Co., 840 N. Main St., Wichita, Kans. (B)
 Watson, M. W., 1004 National Bank of Topeka Bldg., Topeka, Kans. (B-Hvy)
 Wayland, John F., Washington, Kans. (B)
 Weller & Boucher Constr. Co., 1316 S. Mosley, Wichita 11, Kans. (B)
 Wilsam, Geo., 151 Garnett, Wichita, Kans. (B)

(b) KANSAS CONTRACTORS ASSOCIATION

President—M. Clare Miller, San-Ore Constr. Co., 200 E. Kansas, McPherson, Kans.
Manager—J. W. Ballard, Hotel Jayhawk, Topeka, Kans.
Telephone: 3-2748

Alderman Constr. Co., Ottawa, Kans. (H)
 Aldridge, R. G., 1604 Nebraska Ave., Kansas City 2, Kans. (H-Hvy)
 Alsop, John, Wakefield, Kans. (H)
 Anderson Constr. Co., Holton, Kans. (H)
 Anderson-Oxandale, Holton, Kans. (H)
 Asplund Constr. Co., 309 E. Oak St., Enid, Okla. (H-Hvy)
 Atkinson, C. H., Paving Co., Chillicothe, Mo. (H-Hvy)
 B & D Constr. Co., 524 E. Ellsworth, Salina, Kans. (H)
 Baker, G. W., 725 Wisconsin, Holton, Kans. (H)
 Baker, Roy, Ozawkie, Kans. (H)
 Ballou, R. R., Constr. Co., E. Cloud St., Salina, Kans. (H)
 Banta Constr. Co., Harper, Kans. (H)
 Barcus, L. G., & Sons, Inc., 1430 State Ave., Kansas City 2, Kans. (H)

KANSAS—Continued

Bennett Constr. Co., 114 Taylor St., Topeka, Kans. (B-H-Hvy)
 Bennett, Geo., Constr. Co., 3001 N. 7th Street Trafficway, Kansas City, Kans. (H-Hvy)
 Bennett, W. H., Constr. Co., 1310 State St., Kansas City 2, Kans. (H)
 Blacktop Constr. Co., Box 527, Emporia, Kans. (H)
 Blair Bros. Constr. Co., Quinter, Kans. (H)
 Bloom, Dale, Overbrook, Kans. (H-Hvy)
 Blue River Sand & Gravel Co., Irving, Kans. (H)
 Broce Constr. Co., 214 S. 2d, Dodge City, Kans. (H)
 Broce & Smith, Inc., Box 711, Larned, Kans. (H)
 Brommer, O. G., Belleville, Kans. (H)
 Brosnahan, Earl F., 511 Grand Avenue Bank Bldg., Kansas City 6, Mo. (B-H-Hvy)
 Brown Bros. Constr. Co., P. O. Box 228, Manhattan, Kans. (H)
 Brown & Brown, Inc., 715 E. Crawford Ave., Salina, Kans. (H-Hvy)
 Brown, V. U., Constr. Co., Box 1, Downs, Kans. (H)
 Brummel, B. J., Constr. Co., Garnett, Kans. (H)
 Burt & Binford, 507-15 W. 2d Ave., Hutchinson, Kans. (H-Hvy)
 C & H Constr. Co., Box 44, Salina, Kans. (H)
 Carrothers Constr. Co., Inc., Box 350, Paola, Kans. (H)
 Carter, W. B., Constr. Co., P. O. Box 2237, Wichita, Kans. (Hvy)
 Caylor Bros. Constr. Co., Box 261, Medicine Lodge, Kans. (H)
 Cement Asphalt Prods. Co., 410 N. Main St., Winfield, Kans. (H-Hvy)
 Clarkson Constr. Co., The, 4133 Gardner Ave., Box 4924, Sta. F, Kansas City 1, Mo. (H-RR)
 Coffey, Jas., 932 High Ave., Topeka, Kans. (H)
 Collins Constr. Co., P. O. Box 155, Leavenworth, Kans. (H)
 Concrete Materials & Constr. Co., Box 790, 405 Granby Bldg., Cedar Rapids, Iowa (H)
 Constant Constr. Co., Inc., 2d & Perry, P. O. Box 126, Lawrence, Kans. (B-H)
 Cook & Cone, 337 N. Dellose St., Wichita 3, Kans. (H)
 Dobson Bros. Constr. Co., 1st National Bank Bldg., Lincoln, Nebr. (H-Hvy)
 Douglas Bros., Inc., 510 E. 15th St., Topeka, Kans. (Hvy)
 Erickson Constr. Co., Assaria, Kans. (H)
 Forster, A. J., 408 S. Pearl St., Paola, Kans. (H)
 Freeto Constr. Co., Inc., The National Bank Bldg., Pittsburg, Kans. (H-Hvy)
 Frisbie, J. W., Railway Exchange Bldg., Kansas City 6, Mo. (H)
 Geiger, E. W., Inc., 1st & Topeka Blvd., Box 799, Topeka, Kans. (H-Hvy)
 General Engr. Co., 1144 Woodward, Topeka, Kans. (H-Hvy)
 Globe Constr. Co., 1041 N. Water St., Wichita 5, Kans. (H-Hvy)

Gray, C. E., Box 547, Emporia, Kans. (H-Hvy)
 Griffin Constr. Co., 6000 Merriam Rd., Merriam, Kans. (H-Hvy)
 Grosshans & Petersen, Inc., Marysville, Kans. (H-RR)
 Grundeman Constr. Co., 415 E. 4th St., Holton, Kans. (H-Hvy)
 Grundeman, Ed, 1427 W. 37th St., Topeka, Kans. (H)
 Hall Bros. Constr. Co., Marysville, Kans. (H)
 Hamm, Norman R., Perry, Kans. (H)
 Hansen, D. G., Logan, Kans. (H-Hvy)
 Henery, Harry, Inc., Ottawa, Kans. (H)
 Hites, L. V., Co., 214 Grand Avenue Bank Bldg., Kansas City 8, Mo. (H)
 Hixson & Lehenbauer, 717 Lincoln St., Topeka, Kans. (H-Hvy)
 Homer, W. O., Junction City, Kans. (H)
 Hulme, Chas., 816 Main St., Great Bend, Kans. (H)
 Hunter, Ralph H., Constr. Co., Box 622, Hays, Kans. (H)
 Independent Constr. Co., P. O. Box 61, Overland Park, Kans. (H-Hvy)
 Inland Constr. Co., P. O. Box 1993, Wichita, Kans. (H-Hvy-RR)
 Jacobson, L. A., Box 130, Pauls Valley, Okla. (H)
 Kaw Paving Co., Inc., 1st St. & Topeka Ave., Topeka, Kans. (H-Hvy)
 Kiewit, Peter, Sons' Co., Southeast Sta., Wichita 17, Kans. (B-H-Hvy-RR)
 Klaver & Wallace, Box 272, Kingman, Kans. (H)
 Koss Construction Company, 205 Farm Bureau Bldg., Des Moines 9, Iowa (H-Hvy-RR)
 Land Constr. Co., 1207 S. 4th St., St. Joseph 26, Mo. (H-Hvy)
 List & Clark Construction Company, 729 Railway Exchange Bldg., Kansas City 6, Mo. (H-Hvy-RR)
 List & Weatherly Constr. Co., 231 W. 47th St., Kansas City, Mo. (H-Hvy)
 Marbut, T. F., Columbia Bldg., Emporia, Kans. (H)
 Matthews Constr. Co., 451 W. 2d St., Hoisington, Kans. (H)
 Maxwell Bridge Co., The, P. O. Box 348, Columbus, Kans. (H)
 McCollum Constr. Co., 822 E. Beloit, Salina, Kans. (H)
 Midwest Constr. Co., 701 Iowa, Holton, Kans. (H)
 Midwest Pre-Cote Co., 7600 E. 17th St., Kansas City 3, Mo. (H)
 Miller Bros., 1815 State Ave., Kansas City, Kans. (H-Hvy)
 Mission Equip. & Constr. Co., 6007 W. 61st St., Mission, Kans. (H)
 Monaghan, J. H. & N. M., Assoc. Cos., Rt. 1, Derby, Colo. (H)
 Myers, Geo. M., Inc., P. O. Box 665, El Dorado, Kans. (H)
 Penny, M. N., P. O. Box 131, Lawrence, Kans. (H)
 Popejoy, Glenn, Ulysses, Kans. (H)
 Purtzer & Dutton, Norton, Kans. (H)
 Reece Constr. Co., Scandia, Kans. (H-Hvy)
 Reis, A. F., 702 National Bank of Topeka Bldg., Topeka, Kans. (H)

Reno Constr. Co., Box 61, Overland Park, Kans. (H)
 Rexroad, L. W., & Son, Box 954, Salina, Kans. (H)
 Rhoades Constr. Co., Inc., 413½ Main St., Newton, Kans. (H)
 Ritchie Bros. Constr. Co., Box 2178, Wichita 1, Kans. (H)
 Rogers, H. A., & Sons, Lebo, Kans. (H)
 Rogers, Ira, 1267 Boswell, Topeka, Kans. (H-Hvy)
 Ross Sand Co., Concordia, Kans. (H)
 San-Ore Constr. Co., 200 E. Kansas, McPherson, Kans. (H)
 Sargent Excavating Co., Inc., 812 Adams St., Topeka, Kans. (Hvy)
 Scherrer, Dan, Constr. Co., 903 N. 3d St., Kansas City 4, Kans. (H)
 Schwartz, David, Russell, Kans. (H)
 Schweitzer, Adrian L., Osborne, Kans. (H)
 Shears, J. H., Sons, Inc., P. O. Box 227, Hutchinson, Kans. (H)
 Sherwood, A. G., Constr. Co., 829 N. Penn, Independence, Kans. (H)
 Sherwood Constr. Co., Inc., 619 N. Santa Fe St., Wichita 5, Kans. (Hvy)
 Small, M. M., 1619 W. 2d, Topeka, Kans. (H)
 Stannard Constr. Co., 519 S. Broadway, Suite 6, Wichita 2, Kans. (H-Hvy)
 Storms & Frew Constr. Co., 6601 E. 37th St., Kansas City 3, Mo. (H)
 Swenson Constr. Co., 3305 Terrace St., Kansas City 2, Mo. (B-H-Hvy)
 Taylor, H. J., Constr. Co., Box 597, Salina, Kans. (H-Hvy)
 Tobin, J. A., Constr. Co., 3700 Rainbow Blvd., Kansas City 3, Kans. (H-Hvy)
 Universal Bridge Co., Inc., 424 Scarritt Bldg., Kansas City 6, Mo. (H)
 Utility Contrs., Inc., 610 N. Main St., Wichita 5, Kans. (Hvy)
 Walters Sand Co., P. O. Box 618, Manhattan, Kans. (H)
 Watson, M. W., 1004 National Bank of Topeka Bldg., Topeka, Kans. (B-H-Hvy)
 Wentz Constr. Co., Concordia, Kans. (H)
 Western Contracting Corporation, 400 Benson Bldg., Sioux City 15, Iowa (H-Hvy-RR)
 Young Constr. Co., 4209 St. Joseph Ave., St. Joseph, Mo. (H)
 Youngman, H. D., P. O. Box 166, Baxter Springs, Kans. (H-Hvy-RR)

16. KENTUCKY

(a) KENTUCKY HIGHWAY DIVISION

President—A. E. Walker, A. W. Walker & Son, 15 Bank St., Box 308, Mt. Sterling, Ky.
Vice President—Geo. H. Cheek, Geo. H. Cheek Constr. Co., Inc., 300 McClure Bldg., Frankfort, Ky.
Executive Secretary—W. O. Snyder, New Capital Hotel, Frankfort, Ky.
Telephone: 4-4078
 Ambrosius Industries, Inc., 2791 S. Floyd St., Louisville 13, Ky. (H)
 Boone, S. J., 1520 Griffith Ave., Owensboro, Ky. (H)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

KENTUCKY—Continued

Breslin Constr. Co., Inc., 1433 S. Preston St., Louisville 8, Ky. (H)
 Carey Constr. Co., & H. C. Adams, 613 Citizens Bank Bldg., Lexington, Ky. (H)
 Cheek, Geo. H., Constr. Co., Inc., 300 McClure Bldg., Frankfort, Ky. (H)
 Codell Constr. Co., Inc., P. O. Box 17, Winchester, Ky. (H-Hvy-RR)
 Codell, M. T., & Co., Inc., 363 Crescent Ave., Winchester, Ky. (H-RR)
 Corum & Edwards, P. O. Box 112, Madisonville, Ky. (H-Hvy)
 Crow, Fount, Ltd., Box 284, Beaver Dam, Ky. (H)
 Dawson, R. R., Bridge Co., Bloomfield, Ky. (H-RR)
 Fuller-Davies Co., P. O. Box 221, Frankfort, Ky. (H)
 Gaddie, R. E., Inc., P. O. Box 343, Bowling Green, Ky. (H)
 Gorman Constr. Co., P. O. Drawer 151, Flemingsburg, Ky. (H)
 Hinkle Contr. Co., Box 147, Paris, Ky. (B-H)
 Lehman-Roberts Co., 615 Citizens Bank Bldg., Lexington 3, Ky. (H)
 Lovell & Hart Constr. Co., Box 1528, Lexington, Ky. (H)
 Lyons & Breeden, Box 209, Madisonville, Ky. (H)
 Middle States Bituminous Corp., Box 1071, Ashland, Ky. (H)
 Nally & Hamilton, Box 331, Bardstown, Ky. (H)
 Robinson, Robt. M., R. F. D. #1, Owensboro, Ky. (H)
 Snider, W. C., 525 N. Maple Ave., Danville, Ky. (H)
 Strunk Constr. Co., Box 46, Somerset, Ky. (H)
 Talbott-Myers Constr. Corp., P. O. Box 231, Winchester, Ky. (H-Hvy-RR)
 Tye & Wells, Eminence, Ky. (H)
 Tyler, R. B., Co., 1446 Levering St., Louisville 8, Ky. (H)
 Walker, A. W., & Son, 15 Bank St., Box 308, Mt. Sterling, Ky. (H)
 Waters Constr. Co., P. O. Box 152, Elizabethtown, Ky. (H)
 Williams, H. K., Co., 4141 Park Blvd., Louisville, Ky. (H)
 Wood & Barton Co., 410 Ann St., Frankfort, Ky. (H)
 Wyse, Harry O., Versailles Pike, Rt. 2, Lexington, Ky. (H-Hvy)

(b) LOUISVILLE CHAPTER

President—G. Irvine Rommel, Geo. H. Rommel Co., 958 Logan St., Louisville 4, Ky.
Manager—D. R. Lyman, 120 E. Brandeis Ave., Louisville 8, Ky.
Telephone: Calhoun 2521
 Bickel, Henry, Co., Inc., 1020 E. Chestnut St., Louisville 4, Ky. (H-Hvy)
 Bornstein, Ale, Inc., 1219 Logan St., Louisville 4, Ky. (B)
 Derby Constr. Co., Inc., 4504 Poplar Level Rd., Louisville, Ky. (B-H)
 Eady, Geo. M., Co., 340 Byrne St., Louisville 8, Ky. (H-Hvy)

Erhart-Knopf Constr. Co., Inc., 1112 E. Broadway, Louisville, Ky. (B)
 Hays & Nicoulin, 939 Franklin St., Louisville 6, Ky. (B)
 Highland Co., 644 Baxter Ave., Louisville 4, Ky. (H)
 Jennings, J. D., Co., 235 E. Gaulbert St., Louisville 8, Ky. (B)
 Lichtefeld, Fred J., & Son, 989 Logan St., Louisville 4, Ky. (B)
 Louisville Asphalt Co., 240 E. Lee St., Louisville 8, Ky. (H)
 Mann Constr. Co., 422 E. Market St., New Albany, Ind. (B)
 Mueller, C. W., 4001 S. Brook St., Louisville 14, Ky. (B)
 Owens, F. W., Co., 119 N. 5th St., Louisville 2, Ky. (B)
 Platoff Constr. Co., 501 E. Woodbine Ave., Louisville 8, Ky. (B)
 Rommel, Geo. H., Co., 958 Logan St., Louisville 4, Ky. (B)
 Schickli, J. U., & Bros., 13th & Oak Sts., Louisville 10, Ky. (B-H-Hvy)
 Schneider, Al J., Co., 3720 7th St. Rd., Shively, Ky. (B)
 Skilton Engr. & Constr. Corp., 202 E. Bloom Ave., Louisville 8, Ky. (H)
 Steilberg, H. J., & Son, Box 13, Shively, Ky. (B)
 Struck Constr. Co., 147 N. Clay St., Louisville 2, Ky. (B)
 Sullivan & Cozart, 822 W. Kentucky St., Louisville 3, Ky. (B)
 Whittenberg Constr. Co., 2214 S. Floyd St., Louisville 8, Ky. (B)

(c) ASSOCIATED GENERAL CONTRACTORS OF WESTERN KENTUCKY

President—John P. Kerr, John Cassidy Constr. Co., 2303 Elmwood at Belt Line, Paducah, Ky.
Secretary-Manager—Robert O. Clower, Jr., 2303 Elmwood at Belt Line, Paducah, Ky.
Telephone: 2-1219
 Barley, J. R., 520 Maple Ave., Mayfield, Ky. (B)
 Black, Ray, & Son, 348 S. 31st St., P. O. Box 1032, Paducah, Ky. (B)
 Cassidy, John, Constr. Co., 2303 Elmwood at Belt Line, Paducah, Ky. (B)
 Divine Bros. Constr. Co., Central City, Ky. (B)
 Feast, Leslie A., 761 N. 34th St., Paducah, Ky. (B)
 Harper & Gray, P. O. Box 81, Paducah, Ky. (B)
 Hannan, Ed. D., 317-319 Kentucky Ave., Paducah, Ky. (B)
 Katterjohn, Geo. W., 1025 Jefferson St., Paducah, Ky. (B)
 Kirkpatrick Constr. Corp., P. O. Box 380, Hopkinsville, Ky. (B)
 Lake Shore Paving Co., Inc., 2172 Bridge St., Paducah, Ky. (H)
 McIntosh, W. B., Cherokee Park, Hopkinsville, Ky. (B)
 Perry, Hal, 1213 Poplar St., Benton, Ky. (B)

Ruby Constr. Co., Inc., Sugg St., P. O. Box 271, Madisonville, Ky. (B-H-Hvy-RR)
 Stephens, Edgar, Constr. Co., 216 10th St., Cairo, Ill. (B-Hvy-RR)
 Thomasson, Brady, & Son, 1800 Bloom Ave., Paducah, Ky. (B-Hvy)
 Traylor Bros., Inc., P. O. Box 366, Paducah, Ky. (B-Hvy-RR)
 Venable & King, 850 S. 3rd St., Mayfield, Ky. (B)
 Watkins, Grover C., Co., 1851 N. 8th St., Paducah, Ky. (B)
 Wright, Ralph, & Son, 507 Jones St., Mayfield, Ky. (B)

17. LOUISIANA

(a) NEW ORLEANS CHAPTER

President—Geo. S. Farnsworth, R. P. Farnsworth & Co., Inc., 1515 S. Salcedo St., P. O. Box 850, New Orleans 2, La.
Managing Director—Sidney H. Walker, Suite 500, Audubon Bldg., 931 Canal St., New Orleans 16, La.
Telephone: Tulane 8401
 A & O Bldrs., 3207 Metairie Rd., P. O. Box 9216, New Orleans 20, La. (B)
 Andry & Voss, 503 Washington Ave., New Orleans 13, La. (B)
 B & Q Constr. Co., 511 N. Villere St., New Orleans 16, La. (B)
 Bartley & Binnings, 433 Gravier St., New Orleans 12, La. (B)
 Betpouey, Clement, Jr., & Co., 1432 National Bank of Commerce Bldg., New Orleans 12, La. (B-Hvy)
 Blount Bros. Constr. Co., 817 Bell Bldg., Montgomery, Ala. (B)
 Bluestein Constr. Co., 3509 Toulouse St., New Orleans, La. (B)
 Boh Bros. Constr. Co., 2400 Cypress St., P. O. Box 7247, New Orleans 19, La. (B-H-Hvy)
 Bott, C. N., P. O. Box 10127, Jefferson Br., 2551 Metairie Rd., New Orleans 20, La. (B)
 Brice Bldg. Co., Inc., 1021 2d Ave., No., Box 1028, Birmingham 1, Ala. (B)
 Corbin, John C., Contrs., Inc., 833 Wood St., Houma, La. (B)
 Corr, John L., Jr., 3718 Milan St., New Orleans 15, La. (B)
 Demmco Contr. Co., Inc., P. O. Box 277, New Orleans 9, La. (B)
 Farnsworth & Chambers Co., Inc., P. O. Box 332, New Orleans, La. (B-H-Hvy)
 Farnsworth, R. P., & Co., Inc., 1515 S. Salcedo St., P. O. Box 850, New Orleans 2, La. (B-Hvy)
 Favret, Lionel F., Co., Inc., 937 Gravier St., New Orleans 12, La. (B)
 Favrot, Gervais F., Co., 330 Balter Bldg., New Orleans 12, La. (B)
 Fegles Constr. Co., Inc., 711 Wesley Temple Bldg., Minneapolis 4, Minn. (B-Hvy)
 Globe Constr. Co., Inc., 8139 Oleander St., New Orleans 18, La. (B)
 Glover, Geo. J., Co., Inc., 1430 Whitney Bldg., New Orleans 12, La. (B)

A.G.C. DIRECTORY

LOUISIANA—Continued

Goldberg, A. N., Inc., 623 Maison Blanche Bldg., New Orleans 16, La. (B-H-Hvy)
 Gurtler, Hebert & Co., Inc., 1539 Pleasure St., New Orleans 22, La. (B-Hvy)
 Haase Constr. Co., Inc., 424 S. Anthony St., New Orleans, La. (B)
 Hogan Bros., Inc., 236 Focis St., New Orleans 20, La. (B-H-Hvy)
 Jensen, A., P. O. Box 5301, New Orleans 15, La. (B)
 Jones, J. A., Constr. Co., Inc., 209 W. 4th St., P. O. Box 966, Charlotte 1, N. C. (B-H-Hvy-RR)
 Kaiser Engrs., Inc., P. O. Box 1051, New Orleans 4, La. (B)
 Keller Constr. Corp., 7900 Palm St., P. O. Box 439, New Orleans 1, La. (B-H-Hvy)
 Kelly-Generes Constr. Co., 2120 Senate St., New Orleans 22, La. (B-Hvy)
 Lang Co., 2500 Poydras St., New Orleans 19, La. (B)
 Larsen, Chris, Co., 900 Maritime Bldg., New Orleans 12, La. (B)
 McCoy, Geo. W., & Co., Inc., 809 Central Ave., New Orleans 21, La. (B)
 McKee, Robt. E., Gen. Contr., Inc., 3637 Duplessis St., New Orleans, La. (B)
 O'Connor Oakes Co., 542 2d St., Gretna, La. (B)
 Perrilliat-Rickey Constr. Co., Inc., 1530 S. Rendon St., P. O. Box 7027, New Orleans 19, La. (B)
 Reilly, Michael H., 123 S. St. Patrick, New Orleans 19, La. (B)
 Riess, John, 804 Carondelet Bldg., New Orleans 12, La. (B-Hvy)
 Sharp, Otis W., & Son, Inc., P. O. Box 5164, 2401 Rousseau St., New Orleans 13, La. (B)
 Spencer, C. B., 2350 Rousseau, New Orleans 13, La. (B)
 Texas Constr. Co., 205 Balter Bldg., New Orleans 12, La. (B)
 Welsh, E. J., & Co., Inc., 904 National Bank of Commerce Bldg., New Orleans 12, La. (B)

(b) SHREVEPORT CHAPTER

President—L. C. Allen, Allen Constr. Co., P. O. Box 3044, Queensboro Sta., Shreveport, La.
Executive Secretary—C. H. Rollins, P. O. Box 1271, Shreveport, La.
Telephone: 2-8921

Allen Constr. Co., 3855 Dilg League Dr., P. O. Box 3044, Queensboro Sta., Shreveport, La. (B)
 Brockhaus, Ed, 1911 Lake Shore Dr., Box 3325, Queensboro Sta., Shreveport, La. (B)
 Brown, J. M., Constr. Co., Inc., 1012 Spring St., P. O. Box 102, Shreveport, La. (B)
 Furr, D. O., Constr. Co., 718 Edwards St., Shreveport, La. (B)
 General Constr. Co., 1417 Dalzell St., P. O. Box 1622, Shreveport, La. (B)
 Gilbert, F. O., Contr., Inc., 1128 Gilbert Dr., P. O. Box 5361, Bossier City, La. (B)

Gray, W. A., Constr. Co., P. O. Box 626, 361 Grimmer Dr., Shreveport, La. (B)
 Greer Bros., 309 1st National Bank Bldg., Shreveport, La. (B)
 Harper & Florsheim, 216 Milam St., Shreveport, La. (B)
 Jones, J. A., Constr. Co., Inc., 354 Aero Dr., P. O. Box 1818, Shreveport, La. (B)
 Levasseur, A. J., Constr. Co., P. O. Box 3397, Queensboro Sta., Shreveport, La. (B)
 Madden & Larkin, Lincoln Dr., P. O. Box 5615, Bossier City, La. (B)
 McClanahan, Fred C., & Son, 3521 Madison Park Blvd., Shreveport, La. (B)
 McMichael, W. A., Constr. Co., 842 Hope St., P. O. Box 508, Shreveport, La. (B)
 Moncla Constr. Co., The, 5350 Mansfield Rd., P. O. Box 3062, Shreveport, La. (B)
 Neff, Robt. A., 802 Rutherford St., Shreveport, La. (B)
 Shepherd, J. C., 2114 Queens Hwy., Shreveport, La. (B)
 Southern Bldrs., Inc., 201 Hunter Bldg., P. O. Box 1815, Shreveport, La. (B)
 Thomas, J. F., & Son, 117 E. 68th St., Shreveport, La. (B)
 Welch Constr. Co., Box 6428, Cedar Grove Sta., Shreveport, La. (B)
 Werner Co., The, P. O. Box 908, Shreveport, La. (B)
 Whitaker, Guy C., 200 Texas Eastern Bldg., Shreveport, La. (B)

(c) LAKE CHARLES CHAPTER

President—R. Carroll Allen, Western Constr. Co., Inc., 1830 South St., Lake Charles, La.
Secretary—Joe T. Miller, P. O. Box 921, Lake Charles, La.
Treasurer—R. E. Managan, c/o Port City Constr. Co., Inc., 2007 S. Hodges St., P. O. Box 22, Lake Charles, La.

Heidt, R. E., Constr. Co., 2d St., Lake Charles, La. (H-Hvy)
 Knapp & East, 2508 S. Ryan St., P. O. Box 722, Lake Charles, La. (B)
 Miller, T., & Sons, 10 Chavanne Bldg., P. O. Box 921, Lake Charles, La. (B-Hvy)
 Mutersbaugh, A. M., 602 Ann St., Lake Charles, La. (B-H-Hvy)
 Norman, L. A., 739 Pujo St., Lake Charles, La. (B)
 Port City Constr. Co., Inc., 2007 S. Hodges St., Lake Charles, La. (B)
 Western Constr. Co., Inc., 1830 South St., Lake Charles, La. (B)

(d) BATON ROUGE CHAPTER

President—Chas. E. Beadles, C-B Constr. Co., P. O. Box 1967, 1045 Choctaw Rd., Baton Rouge, La.
Managing Director—James H. Gill, 301 Triad Bldg., Baton Rouge, La.
Telephone: 2-4979

Barksdale & LeBlanc, P. O. Box 1567, Baton Rouge, La. (B)
 Broussard, A. B., & Sons, Inc., 2937 Greenwood Dr., P. O. Box 2047, Baton Rouge, La. (B)

Buquet & LeBlanc, 544 Reymond Bldg., Baton Rouge, La. (B)
 C-B Constr. Co., P. O. Box 1967, 1045 Choctaw Rd., Baton Rouge, La. (B)
 Caldwell & McCann, Box 477, Baton Rouge, La. (B)
 Carter, Chas., 1742 N. 21st St., Baton Rouge, La. (B)
 Eaton, L. W., Co., Inc., 209 Triad Bldg., P. O. Box 387, Baton Rouge 1, La. (B)
 Hall & Cox Constr. Co., P. O. Box 1267, Baton Rouge, La. (B)
 King, J. M., 3538 Plank Rd., Baton Rouge 5, La. (B)
 Murphy, J. C., 1165 Choctaw Rd., Box 2308, Baton Rouge, La. (B)
 Pittman Constr. Co., 2925 Franklin Ave., New Orleans, La. (B)
 Thibodeaux, Robt., Co., Inc., 2834 Greenwood Dr., P. O. Box 887, Baton Rouge 6, La. (B)

(e) LOUISIANA HIGHWAY & HEAVY CONSTRUCTION BRANCH

President—Frank A. Barber, Barber Bros. Co., 2604 Dougherty Dr., P. O. Box 629, Baton Rouge, La.
Manager—R. B. Richardson, 704 Louisiana National Bank Bldg., Baton Rouge 1, La.
Telephone: 4-4073

Aldrich, W. R., & Co., P. O. Box 1751, Baton Rouge, La. (B-H-Hvy)
 Allen, H. L., & Sons, Elton, La. (H-Hvy)
 Austin Bridge Co., P. O. Box 1590, Dallas, Texas (H)
 Barber Bros. Co., 2604 Dougherty Dr., P. O. Box 629, Baton Rouge, La. (H-Hvy)
 Caldwell, E. A., 531 Reymond Bldg., P. O. Box 1327, Baton Rouge, La. (H)
 Campbell Constr. Co., Inc., Box 1758, Shreveport, La. (H-Hvy-RR)
 Dickerson & Bowen, P. O. Box 177, Brookhaven, Miss. (H-Hvy)
 Farnsworth & Chambers Co., Inc., P. O. Box 74, Houston 1, Texas (H-Hvy)
 Farnsworth, R. P., & Co., Inc., 1515 S. Salcedo St., P. O. Box 850, New Orleans, La. (B-H-Hvy)
 Flenniken Constr. Co., P. O. Box 634, Shreveport, La. (H-Hvy)
 Forcum-James Co., Inc., P. O. Box 911, Baton Rouge, La. (B)
 Henry & Hall, Dubach, La. (H-Hvy)
 James, T. L., & Co., Inc., Box 531, Ruston, La. (H-Hvy)
 Johnston, A. P., P. O. Box 288, Baton Rouge, La. (B)
 LeBlanc Bros., 702 Louisiana National Bank Bldg., Baton Rouge, La. (H-Hvy)
 Lilly, Roy M., 302 Louisiana Hotel Bldg., Baton Rouge, La. (H-Hvy)
 Magnolia Constr. Co., Inc., 5205 Adams Ave., Audubon Sta. Box 5128, Baton Rouge, La. (Hvy)
 Maxon Construction Company, Inc., 131 N. Ludlow St., Dayton 2, Ohio (Hvy)
 McDermott, J. Ray, & Co., Inc., P. O. Box 38, Harvey, La. (Hvy)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

LOUISIANA—Continued

Miller, T., & Sons, 10 Chavanne Bldg., Lake Charles, La. (B-Hvy)
 Morrison Engr. & Contr. Co., Box 261, New Roads, La. (B-Hvy-RR)
 Netherton Co., P. O. Box 3368, Shreveport, La. (H)
 Patterson, W. H., & Co., P. O. Box 2229, Baton Rouge, La. (H-Hvy)
 Pierson Constr. Co., 1007 Louisiana National Bank Bldg., Baton Rouge, La. (H)
 Pohlman & Wilbanks, P. O. Box 1208, Monroe, La. (B-Hvy)
 Reynolds & Williams, P. O. Box 286, Shreveport, La. (H)
 Roland Constr. Co., P. O. Box 350, Alexandria, La. (B-H-Hvy)
 Spohrer-Pollard, P. O. Box 5127, Bossier City, La. (H)
 Texas Bitulithic Co., P. O. Box 8044, Gentilly Sta., New Orleans 22, La. (H)
 Tomlinson, T. R., Doyline, La. (H)
 Ward, O. J., Inc., P. O. Box 6186, Shreveport, La. (H-Hvy)

(f) CENTRAL LOUISIANA CHAPTER

President—R. J. Jones, R. J. Jones & Sons, 130 Wheelock Ave., P. O. Box 991, Alexandria, La.
Executive Secretary—S. P. Eggers, Jr., 1110 6th St., P. O. Box 1589, Alexandria, La.
Telephone: 6664
 Brezner, Barnet, P. O. Box 654, Alexandria, La. (B-Hvy)
 City Lumber Co., Inc., 602 Monroe St., P. O. Box 89, Alexandria, La. (B)
 Eiland, Jas. A., Jr., Box 487, Bunkie, La. (B)
 F & F Material & Constr. Co., P. O. Box 221, New Iberia, La. (B)
 Gossen Constr. Co., P. O. Box 818, Lafayette, La. (B)
 Gravier & Harper, P. O. Box 1391, Alexandria, La. (B-Hvy)
 Gremillion, A. A., & Co., P. O. Box 1312, Alexandria, La. (B)
 Gremillion Bros., 1030 Washington St., P. O. Box 808, Alexandria, La. (B)
 Jones, R. J., & Sons, 130 Wheelock Ave., P. O. Box 991, Alexandria, La. (B-Hvy)
 Juneau, L. P., Rt. 21, Ransville, Alexandria, La. (B)
 Lagneaux, Richard, & Son, Inc., Duson, La. (B)
 Lemoine Bros., Box 298, Bunkie, La. (B)
 Lemoine, S. J., & Co., P. O. Box 458, Bunkie, La. (B)
 Mouton, J. B., & Sons, 1225 St. John St., P. O. Box 862, Lafayette, La. (B)
 Rabalais, E. E., & Son, P. O. Box 59, Bunkie, La. (B)
 Ratcliff, J. E., 1418 3d St., Box 1943, Alexandria, La. (B)
 Rickey, Horace B., Inc., Box 218, Lafayette, La. (B-Hvy)
 Romero & Theall, Youngsville, La. (B)
 Tudor Constr. Co., 1284 Murray St., P. O. Box 1232, Alexandria, La. (B)
 Vernon Bldrs. & Contr. Co., P. O. Box 45, Leesville, La. (B)

(g) NORTHEAST LOUISIANA CONTRACTORS' ASSOCIATION, INC.

President—Edw. H. Eiland, Box 790, Tullulah, La.
Secretary-Treasurer—G. O. Phillips, Ford, Bacon & Davis Construction Corp., 805 S. Grand St., P. O. Box 1762, Monroe, La.
Executive Secretary—O. W. Brown, P. O. Box 612, Monroe, La.
 Baxter, Don, Sicily Island, La. (B-H)
 Cooley, E. O., Constr. Co., Box 368, Ruston, La. (B)
 Eiland, Edw. H., Box 790, Tullulah, La. (B)
 Ford, Bacon & Davis Construction Corp., 805 S. Grand St., Monroe, La. (B-Hvy)
 Gilbert Bros., 3040 DeSiard St., P. O. Box 1156, Monroe, La. (B)
 Harper, J. A., Crowville, La. (B)
 Haynes, W. G., 615 Cypress St., West Monroe, La. (B)
 Heard, Jesse F., & Son, Box 3566, West Monroe, La. (B)
 Humble & Humble, Cole Ave., Monroe, La. (B)
 Lincoln Bldrs., P. O. Box 51, Ruston, La. (B)
 McBride & Son, Inc., 120 E. Hickory, P. O. Box 46, Bastrop, La. (B)
 Salley, W. C., 511 Ouachita Bank Bldg., P. O. Box 24, Monroe, La. (B-Hvy)
 Spier, L. C., 224 E. Madison St., Bastrop, La. (B)

Local Member

James, T. L., & Co., Inc., Box 531, Ruston, La. (H-Hvy)

18. MAINE

(a) ASSOCIATED GENERAL CONTRACTORS OF MAINE

President—Erik K. Sanders, Sanders Constr. Corp., 415 Congress St., Portland 3, Me.
Executive Secretary—Burleigh Martin, 223 Water St., Augusta, Me.
 Aceto, Samuel, & Co., 40 Preble St., Portland, Me. (B)
 Asselyn, Ernest J., 106 William St., Portland 5, Me. (H-Hvy)
 Brown Constr. Co., 562 Congress St., Portland, Me. (B)
 Callahan, Herbert E., Inc., 41 N. Main St., Auburn, Me. (B-H-Hvy)
 Consolidated Constrs., Inc., 807 Congress St., Portland 4, Me. (B)
 Crooker & Simpson, Bath Rd., Brunswick, Me. (B)
 Cunningham, F. W., & Sons, 181 State St., Portland 3, Me. (B)
 Di Biase, C., Co., Inc., 551 Congress St., Portland 3, Me. (B)
 Gerard Constr. Co., 10 Brann Ave., Lewiston, Me. (B)
 Houston Co., 199 Maine St., Brunswick, Me. (B)
 McLellan, Paul B., Co., 52 Marginal Way, Portland, Me. (B)

Miller, J. H., Inc., 194 Front St., Bath, Me. (B)
 Mitton, Walter V., Inc., 12 Winter St., Augusta, Me. (H-Hvy)
 Profenno, Camillo, Co., 127 Marginal Way, P. O. Box 698, Portland 3, Me. (B-Hvy)
 Robbins & White, Inc., 907 Main St., Westbrook, Me. (B-Hvy)
 Sanders Constr. Corp., 415 Congress St., Portland 3, Me. (B-Hvy)
 Stewart & Williams, Inc., 185 Water St., Augusta, Me. (B-H)
 Verrier, Robt. A., Constr. Co., 65 Commercial St., Portland, Me. (B-Hvy-RR)
 Warren Bros. Roads Co., P. O. Box 209, Fairfield, Me. (H)
 Wyman, A. P., Inc., 240 College Ave., Box 23, Waterville, Me. (B-H-Hvy)

19. MARYLAND

(a) BALTIMORE BUILDERS CHAPTER

President—Herbert J. Leimbach, Leimbach Constr. Corp., 3906 Hickory Ave., Baltimore 11, Md.
Manager—Henry D. Romer, 104 W. Madison St., Suite 5A, Baltimore 1, Md.
Telephone: Mulberry 5-4285
 Armiger Constr. Corp., 2127 Maryland Ave., Baltimore 18, Md. (B)
 Baltimore Contrs., 711 S. Central Ave., Baltimore 2, Md. (B-RR)
 Brooklyn Engr. Corp., 1100 E. 25th St., Baltimore 18, Md. (B-Hvy)
 Cogswell Constr. Co., The, 513 Park Ave., Baltimore 1, Md. (B)
 Consolidated Engr. Co., Inc., 20 E. Franklin St., Baltimore 2, Md. (B)
 Davis Constr. Co., The, 320 W. 24th St., Baltimore 11, Md. (B)
 Eyring, E., & Sons Co., 808 S. Conkling St., Baltimore 24, Md. (B)
 Frantz Constr. Co., The, 1115 E. 30th St., Baltimore 18, Md. (B)
 Industrial Engr. Co., Permanent Troop Spaces, Fort Meade, Md. (B)
 Kirby & McGuire, Inc., 2518 Greenmount Ave., Baltimore 18, Md. (B-Hvy)
 Lawrence Constr. Co., Inc., 2503 St. Paul St., Baltimore 18, Md. (B)
 Leimbach Constr. Corp., 3906 Hickory Ave., Baltimore 11, Md. (B)
 Lyons, Wm. T., Co., Inc., The, 901 Tower Bldg., Baltimore 2, Md. (B-Hvy)
 Morrow Bros., Inc., 2315 N. Charles St., Baltimore 18, Md. (B)
 Piracci Constr. Co., Inc., 2552 Woodbrook Ave., Baltimore 17, Md. (B)
 Redding & Co., Inc., 26 E. 25th St., Baltimore 18, Md. (B)
 Ruff, John K., Co., 100 W. 22d St., Baltimore 18, Md. (B)
 Steiner Constr. Co., 2122 Maryland Ave., Baltimore 18, Md. (B)
 Vizzini, Philip, 504 Stamford Rd., Baltimore 29, Md. (B)
 Young & Adams, Inc., 2 W. 22d St., Baltimore 18, Md. (B)

A.G.C. DIRECTORY

MARYLAND—Continued

Local Member

Intercounty Constr. Corp., 4720 Baltimore Ave., Hyattsville, Md. (Hvy)

20. MASSACHUSETTS

(a) NEW ENGLAND MARINE CONTRACTORS CHAPTER

President—Walter G. Cheever, Blakeslee Rollins Corp., 57 Taylor St., Neponset 22, Boston, Mass.
Secretary—Wm. J. Power, Roy B. Rendle & Co., Inc., 364 Border St., East Boston 28, Mass.
Treasurer—Frank M. Gosbee, Roy B. Rendle & Co., Inc., 364 Border St., East Boston 28, Mass.
Telephone: East Boston 7-0490

Bay State Dredg. & Contr. Co., 62 Condor St., East Boston 28, Mass. (Hvy)
 Beattie Corp., The, 209 Bedford St., Fall River, Mass. (B-Hvy)
 Blakeslee Rollins Corp., 57 Taylor St., Neponset 22, Boston, Mass. (Hvy)
 Buck-MacDonald Co., 88 Broad St., Boston 10, Mass. (Hvy)
 Crandall Engr. Co., 261 Franklin St., Boston 10, Mass. (Hvy-RR)
 Ellis, Wm. H., & Son Co., 479 Meridian St., East Boston 28, Mass. (Hvy)
 M. & R. Constr. Co., 139 Coleridge St., East Boston, Mass. (Hvy)
 McKie Lighter Co., 470 Atlantic Ave., Boston 10, Mass. (Hvy)
 Merritt-Chapman & Scott Corp., New London, Conn. (Hvy)
 Mohr, Henry, 31 St. James Ave., Boston 16, Mass. (Hvy)
 Rendle, Jas. B., Co., 1 Salem St., Malden 48, Mass. (Hvy)
 Rendle, Roy B., & Co., Inc., 364 Border St., East Boston 28, Mass. (Hvy)
 Seaboard Constr. Co., 201 Marginal St., Chelsea 50, Mass. (Hvy)
 Stuart, T., & Son Co., 70 Phillips St., Watertown 72, Mass. (Hvy-RR)

(b) ASSOCIATED GENERAL CONTRACTORS OF MASSACHUSETTS

President—Stanley D. Porter, Wm. H. Porter Co., Inc., 84 Arsenal St., Watertown 72, Mass.

Executive Secretary—Joel B. Leighton, 73 Tremont St., Rms. 314-317, Boston 8, Mass.

Telephone: Richmond 2-0400

Aberthaw Co., 80 Federal St., Boston 10, Mass. (B)
 Allen, S. & A., Constr. Co., 9 Newbury St., Boston, Mass. (B)
 Bailey, Wm. M., Co., 209 Washington St., Boston 8, Mass. (B)
 Barker, Walter H., Inc., 23 Main St., Taunton 12, Mass. (B-Hvy)
 Beacon Constr. Co., 102 Hano St., Allston 34, Mass. (B)

Bennett, Jos. E., Co., Inc., 2 Elm Pl., Brookline Village 46, Mass. (B)
 Bond Bros., Inc., 77 Ferry St., Everett 49, Mass. (B)
 Bossi Constr., Inc., 43 Leon St., Boston 15, Mass. (B)
 Canter Constr. Co., 185 Corey Rd., Brookline 46, Mass. (B)
 Clark, John R., & Assocs., Inc., 73 Main St., Cambridge 42, Mass. (B)
 Clark, Richard F., Co., 67 Rogers St., Cambridge 42, Mass. (B)
 Conti & Donahue, 239 Commercial St., Lynn, Mass. (B)
 Dwan Constr. Co., 29 Bay St., Dorchester 25, Mass. (B-Hvy)
 Eisenberg, Eugene R., Inc., 30 Huntington Ave., Boston 16, Mass. (B)
 Farina Bros., 429 Watertown St., Newton 58, Mass. (B-Hvy)
 Granger Contr. Co., Inc., 306 Main St., Worcester 8, Mass. (B)
 Griffin, John F., Co., 34 Regent St., Cambridge 40, Mass. (B)
 Hawkins, H. H., & Sons Co., 236 Washington St., Newton 58, Mass. (B)
 Hew Constr. Co., 684 Washington St., Boston 11, Mass. (B)
 Horn Bros., Inc., 23 Miner St., Boston 15, Mass. (B)
 Hyndman, Earle L., 20 Beacon St., Boston 8, Mass. (B)
 Jacobucci, R. R., Inc., 28 Dayton St., Box 364, West Quincy 69, Mass. (B)
 Kelliher, Jas. S., 1245 Hancock St., Quincy 69, Mass. (B)
 Logue, Chas., Bldg. Co., 71 Needham St., Newton Highlands 61, Mass. (B)
 Loranger, Theo., & Sons, 404 Nash Rd., New Bedford, Mass. (B-Hvy)
 Macomber, Geo. B. H., Co., Inc., 19 Milk St., Boston 9, Mass. (B)
 Marden, Edw. R., Corp., 233 Harvard St., P. O. Box 87, Brookline 46, Mass. (B)
 Martin, L., & Son, 17 Nassau St., Boston 11, Mass. (B)
 Martiniello, Louis, & Son, 49 Dighton St., Brighton 35, Mass. (B)
 McCreery, Geo. W., Co., 250 Boylston St., Boston 16, Mass. (B)
 Mozzicato Constr. Co., 168 Mystic Ave., Medford 55, Mass. (B)
 Mulcare, Thos., Corp., 66 Western Ave., Boston 34, Mass. (B-Hvy)
 Olson & Appleby, 222 Union St., New Bedford, Mass. (B)
 Piper Bros., 580 Massachusetts Ave., Cambridge, Mass. (B)
 Platt Contr. Co., Inc., 99 1st St., East Cambridge 41, Mass. (B-Hvy)
 Poley-Abrams Corp., 2 Elm Pl., Brookline Village 46, Mass. (B)
 Porter, Wm. H., Co., Inc., 84 Arsenal St., Watertown 72, Mass. (B)
 Potter-Horn, Inc., 606 Statler Bldg., Boston 16, Mass. (B)
 Powers, J. J., Co., 238 Main St., Cambridge 42, Mass. (B)
 Rand, J. F., & Son, 57 Sudbury St., Boston 14, Mass. (B)
 Rappoli, Edmund J., Co., Inc., 515 Massachusetts Ave., Cambridge 39, Mass. (B)

Ritchie, Walter L., 1 Salem St., Malden 48, Mass. (B)
 Runels, R. E., Constr. Co., 515 Chalifoux Bldg., 24 Merrimack St., Lowell, Mass. (B)
 Sciaba & Co., 86 Shawmut Ave., Boston 16, Mass. (B)
 Shuman Constr. Co., 32 Supple Rd., Boston 21, Mass. (B)
 Slotnick, M., Corp., 333 Washington St., Boston 8, Mass. (B)
 Slotnik, J., Co., 99 Chauncy St., Boston 11, Mass. (B)
 Smith, Jas. S., Co., Inc., 263 Washington St., Newton 58, Mass. (B)
 Sullivan-Foster, Inc., 28 Nauset St., New Bedford, Mass. (B-Hvy)
 Thompson-Starrett Co., Inc., 444 Madison Ave., New York 22, N. Y. (B)
 Tocci Bros. Constr. Co., 38 Colonial Ave., Newtonville 60, Mass. (B)
 Tredennick-Billings Co., The, 10 High St., Boston 10, Mass. (B-Hvy)
 Turner Construction Co., 38 Newbury St., Boston 16, Mass. (B)
 Tuttle, Morton C., Co., 862 Park Square Bldg., Boston 16, Mass. (B)
 Vappi & Co., Inc., 240 Sidney St., Cambridge 39, Mass. (B)
 Vara Constr., Inc., 718 Huntington Ave., Boston 15, Mass. (B)
 Volpe Constr. Co., 54 Eastern Ave., Malden 48, Mass. (B)
 Volpe, S., & Co., Inc., 185 Devonshire St., Boston 10, Mass. (B)
 Wexler Constr. Co., Inc., 118 Needham St., Newton Highlands 61, Mass. (B)
 White Constr. Co., Inc., 134 Newbury St., Boston 16, Mass. (B)
 White, Richard, Sons, Inc., 70 Crescent St., West Newton 65, Mass. (B-Hvy)
 Wile, Henry E., Co., 862 Walnut St., Newton Centre 59, Mass. (B)

Local Members

Bianchi, Carlo, and Company, Inc., 24 Union Ave., Framingham, Mass. (H-Hvy-RR)
 Cross, E. J., Company, 150 Prescott St., Worcester 5, Mass. (B)
 Cummings, H. P., Constr. Co., 14 Prospect St., Ware, Mass. (B-Hvy)
 O'Connell's, Daniel, Sons, Inc., 480 Hampden St., Holyoke, Mass. (B-H-Hvy)

21. MICHIGAN

(a) DETROIT CHAPTER

President—A. S. James, O. W. Burke Co., 1032 Fisher Bldg., Detroit 2, Mich.

Secretary-Manager—Ralph A. MacMullan, 1437-B-9 Book Bldg., Detroit 26, Mich.

Telephone: Woodward 2-6297-8

Albrecht, Albert A., Co., The, 1217 Penobscot Bldg., Detroit 26, Mich. (B)
 Atkin-Fordon Co., 7360 W. Chicago Ave., Detroit 4, Mich. (B)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

MICHIGAN—Continued

Auch, Geo. W., Co., 3646 Mt. Elliott Ave., Detroit 7, Mich. (B)
 Barton-Malow Co., McKerchey Bldg., 2631 Woodward Ave., Detroit 1, Mich. (B)
 Bass Engr. & Constr. Co., Birmingham Theatre Bldg., Birmingham, Mich. (B-Hvy-RR)
 Birchard & Roberts, 23931 Kean Ave., Dearborn, Mich. (B)
 Birmingham Constr. Co., 208 Hanna Bldg., Birmingham, Mich. (B-Hvy)
 Boschma, R. D., Co., 19 Church St., Ortonville, Mich. (B)
 Bryant & Detwiler Co., 2110 Penobscot Bldg., Detroit 26, Mich. (B-Hvy-RR)
 Burke, O. W., Co., 1032 Fisher Bldg., Detroit 2, Mich. (B-Hvy)
 Commercial Contr. Corp., 12165 Cloverdale Ave., Detroit 4, Mich. (B-Hvy)
 Cooley, John, Co., 509 Fox Bldg., Detroit 1, Mich. (B)
 Couse, Walter L., & Co., 12740 Lyndon Ave., Detroit 27, Mich. (B-H-Hvy)
 Currie, Thos. E., Co., The, 2531 Conner Ave., Detroit 14, Mich. (H-Hvy)
 Darin & Armstrong, Inc., 2041 Fenkell Ave., Detroit 3, Mich. (B-H-Hvy-RR)
 Etkin, A. J., Constr. Co., 10111 Capital St., Oak Park 37, Mich. (B)
 Faulkner Constr. Co., 1376 E. Bennett, Ferndale 20, Mich. (B)
 Fletemeyer, F. R., 3343 Gratiot Ave., Detroit 7, Mich. (B)
 Fredman, J. A., 735 S. Paddock St., Pontiac 19, Mich. (B)
 Fuller, Geo. A., Company, P. O. Box 146, North End Sta., Detroit 2, Mich. (B)
 HRC Constr. Co., 24518 Ecorse Rd., Inkster, Mich. (B)
 Hamer Bros., Inc., 317 Curtis Bldg., Detroit 2, Mich. (H-Hvy-RR)
 Industrial Constr. Co., 20515 Hoover Rd., Detroit 5, Mich. (B)
 Jutton-Kelly Co., 13240 Alber Ave., Dearborn, Mich. (Hvy-RR)
 Kaufmann, W. J. C., Co., 10610 Shoemaker Ave., Detroit 13, Mich. (B)
 Kuhlman, Leo E., Inc., 9716 Conner Ave., Detroit 13, Mich. (B)
 Kutsche, A. W., & Co., 6275 Schaefer Rd., P. O. Box 4085, Northeastern Sta., Dearborn, Mich. (B)
 Lerner-Linden Constr. Co., 21701 Republic, Oak Park 37, Mich. (B)
 Leto Constr. Co., 15324 Mack Ave., Detroit 24, Mich. (B)
 Martens, Henry M., Co., 2111 Woodward Ave., Detroit 1, Mich. (B)
 Martin, F. H., Constr. Co., 955 E. Jefferson Ave., Detroit 7, Mich. (B)
 McManus, R. H., & Co., 16100 W. 8 Mile Rd., Detroit 35, Mich. (Hvy)
 Palmer-Smith Co., 415 Brainard St., Detroit 1, Mich. (B)
 Rogers, Chas. J., Inc., 14836 Grand River Ave., Detroit 27, Mich. (H-Hvy)
 Smith, Alfred A., Inc., 721 E. Saratoga Ave., Ferndale 20, Mich. (B-Hvy)
 Stibbard Constr. Co., 9400 Central, Detroit 4, Mich. (B)
 Storen, W. J., Co., 2411 14th St., Detroit 16, Mich. (B-H-RR)

Taylor, F. H., Co., 17360 Lahser Rd., Detroit 19, Mich. (B)
 Thomas-Wilson Co., 14330 Meyers Rd., Detroit 27, Mich. (B)
 Thompson-Schmidt Co., The, 18425 James Couzens Hwy., Detroit 21, Mich. (B)
 Utley, J. A., Co., Box 6, North End Sta., Detroit 2, Mich. (B-H-Hvy-RR)
 Walbridge, Aldinger Co., 409 Griswold St., Detroit 26, Mich. (B-H-Hvy-RR)
 Wermuth, Inc., 1036 St. Mary's Ave., Fort Wayne 7, Ind. (B-Hvy)
 Westphal, John C., Inc., 12274 Coyle, Detroit 27, Mich. (B)
 Wood, W. E., Co., 4649 Humboldt Ave., Detroit 8, Mich. (B)

(b) MICHIGAN CHAPTER

President—Karl B. Foster, 1015 S. Saginaw St., P. O. Box 775, Flint, Mich.
Secretary-Manager—George W. Combs, 127 N. Cedar St., Lansing 29, Mich.
Telephone: 2-1631

Alstrom Constr. Co., 1024 E. Airport Rd., P. O. Box 8, Muskegon Heights, Mich. (B)
 Barnes Constr. Co., 1310 Wallen Ave., S. W., Grand Rapids, Mich. (B)
 Beckering Constr. Co., 2140 Horton Ave., S. E., Grand Rapids 7, Mich. (B)
 Braun, Carl, & Son, 606 McBride St., Jackson, Mich. (B)
 Buck, Clifford, Constr. Co., 1389 Kenneth St., Muskegon, Mich. (B)
 Carpenter, Hugh J., & Sons, Inc., 410 Tussing Bldg., Lansing, Mich. (B)
 Christman Co., The, 408-410 Kalamazoo Plaza, Box 536, M. O., Lansing, Mich. (B-H-Hvy)
 Clark Constr. Co., Inc., 216 N. Bridge St., Grand Ledge, Mich. (B-Hvy)
 Consolidated Constr. Co., 800 Marquette Ave., Bay City, Mich. (B)
 Datema, Geo., & Sons, 1560 Taylor Ave., N. E., Grand Rapids, Mich. (B)
 deKoning, Henry, Constr. Co., Municipal Court Bldg., Ann Arbor, Mich. (B)
 Elzinga & Volkers, 222 River Ave., Holland, Mich. (B)
 Foster, Karl B., 1015 S. Saginaw St., P. O. Box 775, Flint, Mich. (B)
 Heineman, J. R., & Sons, Inc., 1224 N. Niagara St., Saginaw, Mich. (B)
 Herlihy Mid-Continent Company, Box A, Comstock, Mich. (B-Hvy-RR)
 Hungerford Constr. Co., 1425 Wildwood Ave., P. O. Box 507, Jackson, Mich. (B)
 Kurtz Bldg. Co., 2½ Jefferson Ct., Ann Arbor, Mich. (B)
 McCready & Sons, Box 185, Gaylord, Mich. (B)
 Miller-Davis Co., 1029 Portage St., Kalamazoo, Mich. (B-H-Hvy)
 Muskegon Constr. Co., 1301 Williams St., Muskegon, Mich. (B)
 Owen-Ames-Kimball Co., 38 Pearl St., N. W., Grand Rapids 2, Mich. (B-Hvy)
 Pearson Constr. Co., Inc., 240 W. Britain Ave., Benton Harbor, Mich. (B)
 Phelps-Wagner Bldrs., 731 Capital Ave., N. E., Battle Creek, Mich. (B)

Reniger Constr. Co., Box 688, M. O., Lansing 3, Mich. (B-H-Hvy)
 Shoemaker, Frank L., 511 E. Main St., Sturgis, Mich. (B)
 Sorensen-Gross Constr. Co., 2505 Lapeer St., Flint, Mich. (B)
 Stevens, Ray, Co., The, 440 W. Ransom St., Kalamazoo, Mich. (B)
 Strom Constr. Co., P. O. Box 86, 625 1st St., N. W., Grand Rapids, Mich. (B-Hvy)
 Strom, E. A., Co., 1770 6th St., Muskegon, Mich. (B)
 Townsend & Bottum, Inc., 1791 S. State St., P. O. Box 368, Ann Arbor, Mich. (B-Hvy)
 Trier, Fred C., Constr. Co., Box 237, W. S., 1401 Brockway, Saginaw, Mich. (B)
 Welsbach Corp., The, P. O. Box 203, St. Joseph, Mich. (Hvy)

(c) MICHIGAN ROAD BUILDERS ASSOCIATION

President—C. Edward Frisinger, The Lewis & Frisinger Co., 214 E. Madison St., Ann Arbor, Mich.
Executive Secretary—C. J. Carroll, 2003 Olds Tower, Lansing 8, Mich.
Telephone: 5-7139

A & A Asphalt Paving Co., 1045 Haynes St., Birmingham, Mich. (H)
 Alpine Constr. Co., P. O. Box EE, St. Ignace, Mich. (H)
 Ann Arbor Constr. Co., 221 Felch St., Ann Arbor, Mich. (B-H-Hvy-RR)
 Atletwed, F. C., Box 175, Rt. 2, St. Clair, Mich. (B-H-Hvy-RR)
 Ayling Asphalt & Paving Co., 306 College Ave., Adrian, Mich. (H)
 Bacco Constr. Co., Iron Mt. Home Furn. Bldg., Iron Mountain, Mich. (H-Hvy-RR)
 Barnes, A. T., Constr. Co., Cass City, Mich. (H)
 Blue Water Excavating Co., 1821 Elmwood St., Port Huron, Mich. (H)
 Boyd, H. R., Co., Inc., 22285 Michigan Ave., Dearborn, Mich. (H-Hvy)
 Brady, E. P., & Co., 600 Citizens Bank Bldg., Flint 3, Mich. (H)
 Brighton & Wing, 17601 Coral Gables, Birmingham, Mich. (H)
 Brown Bros., 3245 W. St. Joseph St., Lansing, Mich. (H)
 Bryant & Detwiler Co., 2110 Penobscot Bldg., Detroit 26, Mich. (B-H-Hvy)
 Cadillac Asphalt Paving Co., 12490 Evergreen Rd., Detroit 23, Mich. (H-RR)
 Canonic Excavating Co., Covert, Mich. (H)
 Carothers, John, 830 W. Main St., Fremont, Mich. (H)
 Cheney, F. G., Williamston, Mich. (H)
 Comstock Constr. Co., P. O. Box 172, Bay City, Mich. (H)
 Cooke Contr. Co., The, 1116 Penobscot Bldg., Detroit 26, Mich. (H-Hvy)
 Couper, Wm. M., Co., 1408 Iroquois Ave., Ann Arbor, Mich. (H)
 Crossman-McCoy, Inc., Niles, Mich. (H)
 Currie, Thos. E., Co., The, 2531 Conner Ave., Detroit 14, Mich. (H)
 Darin & Armstrong, Inc., 2041 Fenkell Ave., Detroit 3, Mich. (B-H-Hvy)

MICHIGAN—Continued

Davidson, L. A., 213 E. St. Joseph St., Lansing 15, Mich. (H-Hvy-RR)
 Denison Constr. Co., P. O. Box 27, Munising, Mich. (H)
 Denton Constr. Co., 7-170 General Motors Bldg., Detroit 2, Mich. (H)
 Detroit Asphalt Paving Co., 432 Lafayette Bldg., Detroit, Mich. (H)
 Detroit Concrete Prods. Corp., 19209 W. Davison Ave., Detroit 23, Mich. (H)
 Drainage Contrs., Inc., 22148 Michigan Ave., Dearborn, Mich. (H-Hvy)
 Dyer, A. L., & Sons, McBrides, Mich. (H)
 East Shore Asphalt Paving Co., P. O. Box 181, Alpena, Mich. (H)
 Edison, L. W., 924 Floral Dr., S. E., Grand Rapids 6, Mich. (H)
 Eisenhour Constr. Co., 1056 E. Grand River Ave., East Lansing, Mich. (H)
 Ferris Co., The, 1119 E. Ash St., Mason, Mich. (H)
 Fitch-Eva Co., The, 223 W. Grand River Ave., Howell, Mich. (H)
 Flynn Constr. Co., 10314 Puritan Ave., Detroit 21, Mich. (H)
 Fox Valley Constr. Co., State Bank Bldg., Appleton, Wis. (H)
 Frank, D. T., Constr. Co., 424 Clifton Blvd., East Lansing, Mich. (H)
 Frisinger, John H., Inc., 1400 Linwood Ave., Ann Arbor, Mich. (H)
 Frisinger, Max R., 1724 S. University Ave., Ann Arbor, Mich. (H)
 Fry & Kain, P. O. Box 456, Lansing 2, Mich. (H-Hvy)
 Garavaglia, Louis, 24240 Mound Rd., Centerline, Mich. (H-Hvy-RR)
 General Paving Constr. Co., 235 Union Ave., S. E., Grand Rapids 6, Mich. (H)
 Getman Bros., South Haven, Mich. (B-H-Hvy)
 Gilliland Constr. Co., Rt. 2, Alpena, Mich. (H)
 Gillisse, John & Paul, Grandville, Mich. (H)
 Globe Constr. Co., 312 Peck Bldg., Kalamazoo, Mich. (H)
 Gooding, O. E., & Co., 714 Collegewood, Ypsilanti, Mich. (H)
 Goodwin, Carl, & Sons, 500 Delano St., Allegan, Mich. (H-RR)
 Gould & Cross, 3849 Three Mile Rd., N. E., Grand Rapids 1, Mich. (H)
 Graft, E. W., Constr. Co., 2870 Harrison St., Saginaw, Mich. (H)
 Grand Rapids Asphalt Paving Co., 341 Market Ave., S. W., Grand Rapids 3, Mich. (H)
 Harris-McBurney Co., 297 W. Michigan Ave., Jackson, Mich. (H)
 Harvie, Wm. H., 28450 Santa Barbara Dr., Birmingham 21, Mich. (H)
 Herlihy Mid-Continent Co., Box A, Comstock, Mich. (H)
 Hertel & Deyo Co., 5205 Division Ave., So., Grand Rapids 8, Mich. (H-Hvy)
 Heustis & Streff, 821 Carmel St., Cadillac, Mich. (H)

Hicks Co., The, 630 E. Superior St., Alma, Mich. (H)
 Hobeck, J. W., 1899 S. Shore Dr., Holland, Mich. (H)
 Hodgkiss & Douma, Box 311, Petoskey, Mich. (B-H-Hvy-RR)
 Holland Constr. Co., 303 Peoples State Bank, Holland, Mich. (H)
 Horning, Roy, Inc., 625 W. 2d St., Flint, Mich. (H)
 Hull, Clarence A., Dryden, Mich. (H-Hvy-RR)
 Hunt, C. R., Cass City, Mich. (H)
 Jackson, John K., Rt. 2, Box 390, Ironwood, Mich. (H)
 Jarvick, E., Constr. Co., 18285 Littlefield, Detroit 35, Mich. (H)
 Johnson-Greene Co., 416 E. Huron St., Ann Arbor, Mich. (H-Hvy)
 Jutton-Kelly Co., 13240 Alber Ave., Dearborn, Mich. (H-Hvy-RR)
 Kalkman, Neil & Al, Constr. Co., Box 609, Holland, Mich. (H)
 Knapp, Walter, Box 593, Monroe, Mich. (H-Hvy-RR)
 Lamb, L. W., Co., P. O. Box 1102, Holland, Mich. (H-Hvy-RR)
 Leffler, A. S., Gravel Co., 112 S. State St., Davison, Mich. (H)
 Lewis & Frisinger Co., The, 214 E. Madison St., Ann Arbor, Mich. (B-H-Hvy-RR)
 Lindberg, A., & Sons, Ishpeming, Mich. (H-Hvy-RR)
 Loomis, C. M., 418 Murray Bldg., Grand Rapids 2, Mich. (H)
 Loselle Constr. Co., Box 1001, Wyandotte, Mich. (H)
 Luedtke Engr. Co., Box 111, Frankfort, Mich. (H-Hvy)
 Maclean Constr. Co., 706 E. Sheridan St., Lansing 6, Mich. (H)
 McNally Constr. Co., 2809 Maplewood, Saginaw 38, Mich. (H-Hvy)
 McNally, W. F., Co., Bridgeport, Mich. (H)
 Meagher, W. J., & Sons, 24th & Water Sts., Bay City, Mich. (H-Hvy-RR)
 Meyer, Robt. Wm., Box 145, Cadillac, Mich. (B-H)
 Mid-America Engr. Corp., 4922 Dempster St., Skokie, Ill. (H)
 Midland Contr. Co., 145 Rodd St., Midland, Mich. (H)
 Miller, Paul C., 101 N. Park St., Comstock Park, Mich. (H)
 Muehlenbeck, Wm. J., 1253 S. Water St., Saginaw, Mich. (H-Hvy-RR)
 Nagelkirk & Ranta, 2550 Chicago Dr., S. W., Grand Rapids 9, Mich. (H)
 Nolan, E. C., Co., 8121 Warren Blvd., Centerline, Mich. (H-RR)
 Oak Constr. Co., 220 E. 7th St., Royal Oak, Mich. (B-H-Hvy-RR)
 Payne & Dolan of Wisconsin, Inc., 1138 1st Wisconsin National Bank Bldg., Milwaukee 2, Wis. (H)
 Pickitt, Harry, 409 Hubbard St., Allegan, Mich. (H)

Pierson Contr. Co., 200 Eddy Bldg., Saginaw, Mich. (H)
 Plozai, Jos., Inc., 4329 Central Ave., Detroit 10, Mich. (H)
 Porath, Julius, & Son Co., 432 Lafayette Bldg., Detroit, Mich. (H)
 Posthumus, Gerritt, 35456 Van Born Rd., Wayne, Mich. (H)
 Price, F. H., & Co., 1330 N. Genesee Dr., Lansing, Mich. (H)
 Proksch Constr. Co., Iron River, Mich. (B-H-Hvy-RR)
 Raff & Dexter, 210 W. Greenlawn, Lansing 10, Mich. (H)
 Rieth-Riley Constr. Co., P. O. Box 477, W. Madison St., Goshen, Ind. (H)
 Roberts, R. W., & Co., 8744 S. Inkster Rd., Inkster P. O., Mich. (H)
 Rogers, Chas. J., Inc., 14836 Grand River Ave., Detroit 27, Mich. (H-Hvy)
 Ruckman-Hansen, Inc., 3617 Leo Rd., Fort Wayne, Ind. (H)
 Sablain, Ray, 2827 S. Cedar St., Lansing 10, Mich. (H)
 Sargent, B. H., 173 N. 2d, West Branch, Mich. (H-Hvy-RR)
 Sargent Constr. Co., 2840 Bay Rd., Saginaw, Mich. (B-H-Hvy-RR)
 Schwaderer, E. B., & Co., P. O. Box 157, Cass City, Mich. (H)
 Schworm, Ivan W., Peninsula Shores Park, Grawn, Mich. (H)
 Shingledecker, H. C., 34 Dakota St., Pontiac, Mich. (H)
 Storen, W. J. Co., 2411 14th St., Detroit 16, Mich. (H-Hvy)
 Straits Constr. Co., 1st National Bank Bldg., St. Ignace, Mich. (H)
 Sugden & Sivier, Inc., 13100 Cloverdale Ave., Oak Park 37, Mich. (H-Hvy)
 Taber-Carmody Co., 125 Front Ave., N. W., Grand Rapids 4, Mich. (H-RR)
 Taylor Bros. Co., Inc., 985 Haynes St., Birmingham, Mich. (H)
 Thornton Constr. Co., 1028 Ethel Ave., Hancock, Mich. (H)
 Toebe, Walter, & Co., P. O. Box 761, Lansing 3, Mich. (H-Hvy)
 Toth Constr. Co., P. O. Box 96, Muskegon Heights, Mich. (H)
 Vander Veen, E. J., 2910 Plainfield Ave., Grand Rapids 5, Mich. (H)
 Vander Veen, P., & Sons, 2020 Newark, S. E., Grand Rapids 7, Mich. (H)
 Vinton Constr. Co., Coldwater, Mich. (H)
 Walser, John F., 3821 Pontiac Lake Rd., Pontiac, Mich. (H)
 Weir Contr. Co., 12592 Inkster Rd., Detroit 28, Mich. (H)
 West Shore Constr. Co., Zeeland, Mich. (H)
 Whitehead, I. L., Co., 1107 W. Easterday Ave., Sault Ste. Marie, Mich. (H)
 Wright Constr. Co., P. O. Box 35, N. Lansing Sta., Lansing, Mich. (H-Hvy)
 Yerington, John G., R. R. #3, Box 34, Benton Harbor, Mich. (H)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

22. MINNESOTA**(a) ASSOCIATED GENERAL CONTRACTORS OF MINNESOTA**

President—J. D. Meland, Jay W. Craig Co., 1814 N. E. California St., Minneapolis 13, Minn.
Manager—R. J. Hendershott, 910 Builders Exchange Bldg., Minneapolis 2, Minn.
Telephone: Atlantic 0804

Eian & Ness, 407 Stanton Ave., Fergus Falls, Minn. (B)
 Eickhof, Otto J., & Sons, Inc., Crookston, Minn. (B)
 Fowler-Veranth Constr. Co., 303 S. 1st Ave., E., Duluth 2, Minn. (B)
 Helmer, Stanley S., 713 3d Ave., E., Grand Rapids, Minn. (B)
 Home Bldrs. Co., St. Cloud, Minn. (B)
 LaFond, Marcel, 615 1st St., S. E., Little Falls, Minn. (B)
 Larson Constr. Co., Pelican Rapids, Minn. (B)
 Lenci, Lenci & Englund, Inc., 1021 2d Ave., So., Virginia, Minn. (B)
 McDonald Constr. Co., 423 S. 7th St., Brainerd, Minn. (B)
 Moe, I. L., & Son, 363 5th Ave., No., Bayport, Minn. (B)
 Nasvik Constr. Co., 315 Park Ave., Bemidji, Minn. (B)
 Nelson, Bennie H., Constr. Co., 1225 W. 3d St., Red Wing, Minn. (B)
 Shakopee Gen. Constr., Inc., 224 Somerville St., Shakopee, Minn. (B)
 Stavn, H. L., Co., Inc., 2521 1st Ave., Hibbing, Minn. (B)
 Western-Knapp Engr. Co., 1933 4th Ave., E., Hibbing, Minn. (B)

(Minneapolis Builders Division)

Adams Constr. Co., 2837 Girard Ave., So., Minneapolis 8, Minn. (B)
 Anderberg, O. R., Co., 2923 Oakland Ave., So., Minneapolis 7, Minn. (B)
 Bass, Jos. A., Co., 332 Sexton Bldg., Minneapolis 15, Minn. (B)
 Cederstrand, August, Co., 966 Central Ave., Minneapolis 13, Minn. (B)
 Comb, Fred R., Co., 2901 Aldrich Ave., So., Minneapolis 8, Minn. (B)
 Cook, Geo. F., Constr. Co., 2833 Lyndale Ave., So., Minneapolis 8, Minn. (B)
 Crawford-Merz Co., 2316 4th Ave., So., Minneapolis 4, Minn. (B)
 Dean Contr. Co., 2122 Penn Ave., So., Minneapolis 5, Minn. (B)
 Field, C. O., Co., 2940 Harriet Ave., Minneapolis 8, Minn. (B)
 Fleisher Engr. & Constr. Co., 1250 Builders Exchange Bldg., Minneapolis 2, Minn. (B)
 Ganley, Ernst M., Co., Inc., 2922 Oakland Ave., Minneapolis 7, Minn. (B)
 Giertsen, Walter D., Co., 900 Glenwood Ave., Minneapolis 5, Minn. (B-H)
 Haglin, C. F., & Sons Co., 123 Bryant Ave., No., Minneapolis 3, Minn. (B)

Jensen Constr. Co., P. O. Box 965, Richfield Br., Minneapolis 19, Minn. (B)
 Johnson, C. O., Constr. Co., 650 Builders Exchange Bldg., Minneapolis 2, Minn. (B)
 Knutson Constr. Co., 3000 E. Hennepin Ave., Minneapolis 13, Minn. (B)
 Kraus-Anderson, Inc., 501 S. 8th St., Minneapolis 15, Minn. (B)
 Laurence, Paul A., Co., 416 Builders Exchange Bldg., Minneapolis 2, Minn. (B)
 Lebeck & Co., 540 Baker Bldg., Minneapolis 2, Minn. (B)
 Leck, D'Arcy, Constr. Co., 2838 Stevens Ave., Minneapolis 8, Minn. (B)
 Leck, Jas., Co., 211 S. 11th St., Minneapolis 2, Minn. (B)
 Leighton, H. N., Co., 716 S. 7th St., Minneapolis 15, Minn. (B)
 Libbey & Libby Co., 2812 Dupont Ave., So., Minneapolis 8, Minn. (B)
 Madsen Constr. Co., 2110 Nicollet Ave., Minneapolis 4, Minn. (B)
 McKenzie-Hague-Simmons Co., 1116 Flour Exchange Bldg., Minneapolis 15, Minn. (B)
 Midwest Contr. Co., 2944 17th Ave., So., Minneapolis 7, Minn. (B)
 Naugle-Leck, Inc., 714 Baker Bldg., Minneapolis 2, Minn. (B)
 Northwestern Constr. Co., 2710 Nicollet Ave., Minneapolis 8, Minn. (B)
 Peterson Constr. Co., 620 National Bldg., Minneapolis 2, Minn. (B)
 Sebco, Inc., 1011 Currie Ave., No., Minneapolis 3, Minn. (B)
 Stahr Co., The, 914 Marquette Ave., Minneapolis 2, Minn. (B)
 Standard Constr. Co., Inc., 250 Builders Exchange Bldg., Minneapolis 2, Minn. (B)
 Watson, Fred O., Co., 404 Baker Bldg., Minneapolis 2, Minn. (B)
 Witcher, Dean L., Inc., 542 Builders Exchange Bldg., Minneapolis 2, Minn. (B)

(St. Paul Builders Division)

Baumeister, Wm., Constr. Co., 635 Hamm Bldg., St. Paul 2, Minn. (B)
 Fridholm Constr. Co., 1795 St. Clair Ave., St. Paul 5, Minn. (B)
 Fuel Economy Engr. Co., 508-512 New York Bldg., St. Paul 1, Minn. (B)
 General Service, Inc., 459 Atwater St., St. Paul 3, Minn. (B)
 Hurley, Gene, Constr. Co., 403 S. Robert St., St. Paul 7, Minn. (B)
 Jensen, Chris, Co., 1385 Selby Ave., St. Paul 4, Minn. (B)
 Johnson, Jos. E., & Son, 477 Selby Ave., St. Paul 2, Minn. (B)
 Kraus-Anderson of St. Paul Co., 190 Ramsey St., St. Paul 2, Minn. (B)
 Lovering Constr. Co., 616 Guardian Bldg., St. Paul 1, Minn. (B)
 Murphy, Wm., & Son, 428 New York Bldg., St. Paul 1, Minn. (B)
 Procon, Inc., P. O. Box 267, St. Paul Park, Minn. (B)
 Sauers Constr. Co., Inc., 1255 W. Larpenteur Ave., St. Paul 8, Minn. (B)

Sault, L. H., 332 1st Federal Bldg., St. Paul 1, Minn. (B)
 Shelgren, Roy A., 324 1st Federal Bldg., St. Paul 1, Minn. (B)
 Steenberg Constr. Co., Inc., 1371 Marshall Ave., St. Paul 4, Minn. (B)
 Sweitzer, J. S., & Son, Inc., 739 Pillsbury Ave., St. Paul 4, Minn. (B)

(Southern Minnesota Builders Division)

Anderson, O. J., & Son, 1009 St. Thomas St., Albert Lea, Minn. (B)
 Benike, Alvin E., 330 3d Ave., N. W. Rochester, Minn. (B)
 Diekema, Dick, Constr., Inc., 1316 James Ave., Albert Lea, Minn. (B)
 Foley Constr. Co., 316 E. Main St., Albert Lea, Minn. (B)
 Johnson Constr. Co., 677 Main St., Winona, Minn. (B)
 Jordan Bldrs., 909 Brownsdale Ave., Austin, Minn. (B)
 Kratochvil Constr. Co., New Prague, Minn. (B)
 Pagenhart, C. C., 217½ S. Broadway, Rochester, Minn. (B)
 Petersen, N. A., 401 S. 3d St., Austin, Minn. (B)
 Schwab, P. Earl, 166 W. 2d St., Winona, Minn. (B)
 Stocke, O. A., & Co., Inc., 115 3d St., S. W., Rochester, Minn. (B)
 Wagner Constr. Co., 406 S. Burr Oak Dr., Austin, Minn. (B)

(Municipal Contractors Division)

Barbarossa & Sons, Inc., 402 33d Ave., No., St. Cloud, Minn. (Hvy)
 Casper, Everett, Constr., Grand Rapids, Minn. (Hvy)
 Fraser, Carlisle G., 1397 Laurel Ave., St. Paul 4, Minn. (Hvy)
 Jacobs, M. J., & Sons, Bird Island, Minn. (Hvy)
 Lametti & Sons, Inc., 211 N. Pascal Ave., St. Paul 4, Minn. (Hvy)
 McNulty, L. J., Inc., 2001 Wentworth Ave., South St. Paul, Minn. (Hvy)
 Morettini, F., 1416 E. Maryland Ave., St. Paul 6, Minn. (Hvy)
 Nagel, J. J., Perham, Minn. (Hvy)
 Nodland, Henry, Co., Alexandria, Minn. (Hvy)
 Phelps-Drake Co., Inc., 1415 8th St., S. E., Minneapolis 14, Minn. (Hvy)
 Sandstrom & Hafner, 740 E. Superior St., Duluth, Minn. (Hvy)
 Terry, Wm. V., Excavating Co., Inc., 6005 Walker St., St. Louis Park, Minn. (Hvy)
 Wolff Constr. Co., 2360 University Ave., St. Paul 4, Minn. (Hvy)

(Highway and Heavy Construction Division)

Alexander Constr. Co., 4641 Hiawatha Ave., Minneapolis 6, Minn. (H)
 Alley, A. L., & Son, Box 387, Faribault, Minn. (H)
 Ashbach, Otto B., & Sons, Inc., 2975 Hamline Ave., No., St. Paul 8, Minn. (H)
 Ashworth & Son Co., 3601 Alabama Ave., Minneapolis 16, Minn. (H)

MINNESOTA—Continued

Benson, Roy, & Son, Stephen, Minn. (H)
 Biwabik Gravel Co., Inc., 621 9th St., No.,
 Virginia, Minn. (Hvy)
 Blattner, D. H., & Sons, Albany, Minn. (H)
 Bolander, Carl, & Sons Co., 2933 Pleasant
 Ave., Minneapolis 8, Minn. (H)
 Bolduc, L. H., & Co., 3050 4th Ave., So.,
 Minneapolis 8, Minn. (H)
 Bradbury, P. A., Constr. Co., Wylie Park Rd.,
 Aberdeen, S. Dak. (H)
 Conroy, Dan, & Sons, Collins, Minn. (H)
 Coons, E. W., Co., Inc., P. O. Box 239, Hib-
 bing, Minn. (H-Hvy)
 Craig, Jay W., Co., 1814 N. E. California St.,
 Minneapolis 13, Minn. (H)
 DeRuyter Bros., 1123 Trott Ave., W., Will-
 mar, Minn. (H)
 Dieseth, John, Co., Fergus Falls, Minn. (H)
 Duinick Bros. & Gilchrist, Olivia, Minn. (H)
 Dunn, H. J., Black Top Surfacing Co., Win-
 ona, Minn. (H)
 Farrell Contr. Co., 1607 Wynne Ave., St.
 Paul 4, Minn. (H)
 Fegles Constr. Co., Ltd., 711 Wesley Temple
 Bldg., Minneapolis 4, Minn. (B-Hvy)
 Feller, L. M., Co., Rochester, Minn. (H)
 Fielding & Shepley, Inc., 1258 Bohn Ave.,
 St. Paul 4, Minn. (H-Hvy)
 Fischer Constr. Co., Farmington, Minn. (H)
 Foley Brothers, Inc., 900 New York Bldg.,
 St. Paul 1, Minn. (B-H-Hvy)
 Freeman Constr. Co., Inc., Spring Valley,
 Minn. (H)
 Ganley, Howard, Inc., 2336 Hampden Ave.,
 St. Paul 4, Minn. (H)
 Groves, Lundin & Cox, Inc., 310 Wesley
 Temple Bldg., Minneapolis 4, Minn.
 (Hvy)
 Groves, S. J., & Sons Co., 500 Wesley Temple
 Bldg., Minneapolis 4, Minn. (H-Hvy)
 Haagensohn & Tranby, McIntosh, Minn. (H)
 Hallett Constr. Co., Crosby, Minn. (H-Hvy)
 Hector Constr. Co., Inc., P. O. Box 107,
 Caledonia, Minn. (H)
 Herbison Constr. Co., Brainerd, Minn. (H)
 Industrial Contr. Co., 3050 S. 4th Ave., Min-
 neapolis 3, Minn. (H)
 Jeffries Constr. Co., Rt. 1, Mankato, Minn.
 (H)
 Johnson, Al, Construction Co., 608 Foshay
 Tower, Minneapolis 2, Minn. (H-Hvy)
 Johnson Constr. Co., Grove City, Minn. (H)
 Johnson, Drake & Piper, Inc., 1138 Baker
 Bldg., Minneapolis 2, Minn. (B-H-Hvy-
 RR)
 Joyce, Leon, 220½ 1st Ave., S. W., Roches-
 ter, Minn. (H)
 Klehr, L. M., Constr. Co., Inc., 1502 Nicollet
 Ave., Minneapolis 4, Minn. (H)
 Komatz Constr. Co., St. Peter, Minn. (H)
 Lysne Constr. Co., Blooming Prairie, Minn.
 (B-H)
 Mark Sand & Gravel Co., Montgomery Ward
 Bldg., Fergus Falls, Minn. (H)
 McCree & Co., 918 New York Bldg., St.
 Paul 1, Minn. (H-Hvy)
 Nelson, C. L., & Co., Inc., 510 N. Bluff,
 Brainerd, Minn. (H)

Nelson, Mullen & Nelson, Inc., 600 Kasota
 Bldg., Minneapolis 1, Minn. (Hvy)
 Nelson, Mullen & Webster, 600 Kasota Bldg.,
 Minneapolis 1, Minn. (H)
 New London Materials & Constr. Co., Carl-
 son Bldg., Willmar, Minn. (Hvy)
 Okes Constr. Co., E. 1501 1st National Bank
 Bldg., St. Paul 1, Minn. (H-Hvy)
 O'Loughlin & Hansen, 218 1st Ave., S. W.,
 Rochester, Minn. (H)
 Park Constr. Co., 1405 11th Ave., So., Min-
 neapolis 4, Minn. (H-Hvy)
 Pedersen Bros., Inc., Montevideo, Minn. (H)
 Pederson, P. O., Inc., North Branch, Minn.
 (H)
 Pennig, E. J., Co., 475 W. Minnehaha Ave.,
 St. Paul 3, Minn. (H)
 Peterson, Carl H., Co., 5946 Pleasant Ave.,
 Minneapolis 9, Minn. (H)
 Purtell, Harold, Constr. Co., 317 Hamm
 Bldg., St. Paul 2, Minn. (B-H-Hvy)
 Reese, Herbert, Greenbush, Minn. (H)
 St. Paul Dredging Co., 1397 Laurel Ave.,
 St. Paul 4, Minn. (H-Hvy)
 Sculley, C. F., Constr. Co., 725 Front Ave.,
 St. Paul 3, Minn. (H)
 Skelton, Ray W., Co., Inc., 6540 Lyndale
 Ave., So., Minneapolis 19, Minn. (H)
 Sorensen Bros., Inc., P. O. Box 246, Albert
 Lea, Minn. (H)
 Souther, M. E., Constr. Co., 1533 Como
 Ave., St. Paul 4, Minn. (B-H-Hvy)
 Thorson Constr. Co., Balaton, Minn. (H)
 Ulland Bros., Austin, Minn. (H)
 United Construction Co., 64 W. 5th St.,
 Winona, Minn. (Hvy)
 Volden, Verdrie J., Inc., Farmington, Minn.
 (H)
 Winston Bros. Company, 1470 Northwestern
 Bank Bldg., Minneapolis 2, Minn. (B-H-
 Hvy)
 Woodrich Constr., Inc., 201 18th Ave., So.,
 Hopkins, Minn. (H-Hvy)

23. MISSISSIPPI

**(a) MISSISSIPPI VALLEY
FLOOD CONTROL BRANCH**

**President—J. W. Rodgers, H. N. Rod-
 gers & Sons Co., P. O. Box 750,
 Memphis, Tenn.**
**Manager—Bruce Tucker, Suite 203,
 Hotel Peabody, Memphis 3, Tenn.**
Telephone: 8-1733

Atlas Constr. Co., Inc., Vidalia, La. (Hvy)
 Blanks, H. B., Constr. Co., Box 37, Vidalia,
 La. (Hvy)
 Boyle Constr. Co., Box 471, 30 E. Liberty St.,
 Sumter, S. C. (Hvy)
 Clark & Farrell, Brinkley, Ark. (Hvy)
 Cohen, S. J., Blytheville, Ark. (Hvy)
 Cook Constr. Co., Jackson, Miss. (Hvy)
 Cross, Jas. P., 120 Iberia St., New Iberia,
 La. (Hvy)
 Crumpecker, Wm., & Sons, Morehouse, Mo.
 (Hvy)
 Driver Contr. Co., The, 406 Cotton Exchange
 Bldg., Memphis, Tenn. (Hvy)

Forcum-James Co., Dyersburg, Tenn. (B-H-
 Hvy)
 Fordice Constr. Co., Rm. 42, Porter Bldg.,
 Memphis, Tenn. (Hvy)
 Great Lakes Dredge & Dock Co., 124 Camp
 St., New Orleans, La. (Hvy)
 Hough-Cowgur & Co., Inc., 320 N. 4th St.,
 St. Louis, Mo. (Hvy)
 Hyde Constr. Co., Box 385, Jackson, Miss.
 (Hvy)
 Ingram, W. K., Constr. Co., Box 445, West
 Memphis, Ark. (Hvy)
 Inland Constr., Co., Inc., Rosedale, Miss.
 (Hvy)
 Jahneke Service, Inc., 814 Howard Ave., New
 Orleans, La. (Hvy)
 James, T. L., & Co., Inc., Box 531, Ruston,
 La. (H-Hvy)
 Jones & Buchanan, P. O. Box 2425, Baton
 Rouge 1, La. (Hvy)
 Jones & Gillis, Inc., 607 W. 2d St., Clarks-
 dale, Miss. (Hvy)
 Jones, S. K., Constr. Co., Sterick Bldg.,
 Memphis, Tenn. (Hvy)
 List, C. J., Constr. Co., 338 Railway Ex-
 change Bldg., Kansas City 6, Mo. (H-
 Hvy)
 Markham & Brown, 1961 N. Industrial Blvd.,
 Dallas, Texas (Hvy)
 McAlister-Davis Co., 1439 S. Bellevue, Mem-
 phis, Tenn. (Hvy)
 McWilliams Dredging Company, 903 S. Jef-
 ferson Davis Pkwy., P. O. Box 584, New
 Orleans 7, La. (Hvy)
 Mississippi Valley Engr. & Constr. Co., 787
 S. Willett, Memphis, Tenn. (Hvy)
 Morgan, Edw. E., Co., Inc., P. O. Box 4327,
 Fondren Sta., Jackson, Miss. (Hvy)
 Patton-Tully Transportation Co., N. 2d St.,
 Memphis, Tenn. (Hvy)
 Pine Bluff Sand & Gravel Co., P. O. Box
 248, Foot of Nebraska St., Pine Bluff,
 Ark. (Hvy)
 Pioneer Contr. Co., Inc., P. O. Box 4696,
 North Sta., Memphis, Tenn. (Hvy)
 Porter-DeWitt Constr. Co., P. O. Box 279,
 Poplar Bluff, Mo. (Hvy)
 Potashnick, R. B., P. O. Box 205, Cape
 Girardeau, Mo. (Hvy)
 Reid, R. J., Contr. Co., P. O. Box 1990, Bir-
 mingham, Ala. (Hvy-RR)
 Rodgers, H. N., & Sons Co., P. O. Box 750,
 Memphis, Tenn. (Hvy-RR)
 Sanders, L. L., 4414 "I" St., Little Rock, Ark.
 (Hvy)
 Smith, Gerald, Constr. Co., 2975 S. 3d St.,
 Memphis, Tenn. (Hvy)
 Stephens, Edgar, & Sons, Inc., 216 10th St.,
 Cairo, Ill. (Hvy)
 Tvedt, L. A., 10 N. Main Bldg., Memphis,
 Tenn. (Hvy)
 Vollmer, C. W., & Co., Inc., 601 San Jacinto
 Bldg., Houston 2, Texas (Hvy)
 Walsh, John H., & Co., Inc., 313½ W. Pas-
 cagoula St., P. O. Box 631, Jackson,
 Miss. (Hvy)
 Warren Bros. Roads Co., P. O. Box 549, Bir-
 mingham 1, Ala. (Hvy)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

MISSISSIPPI—Continued

Watts, Cleal T., Rochdale, Miss. (Hvy)
Weymouth Constr. Co., P. O. Box 319, Memphis, Tenn. (Hvy)
Wolfe, Monroe J., 1023 Ridgewood Dr., New Orleans, La. (Hvy)
Wright Contr. Co., P. O. Box 1537, Columbus, Ga. (Hvy)

(b) ASSOCIATED BUILDING CONTRACTORS OF MISSISSIPPI

President—W. I. Schutt, M. T. Reed Constr. Co., Millsaps & Wightman Sts., P. O. Box 1066, Jackson, Miss.
Secretary-Manager—Kirk R. Jeffreys, P. O. Box 3193, West Jackson Sta., Jackson, Miss.
Telephone: 5-7572

Bass, G. E., & Co., P. O. Box 1033, Jackson, Miss. (B)
Campbell Constr. Co., 792 Commerce St., Jackson, Miss. (B)
Dye & Mullings, Inc., P. O. Box 485, Columbia, Miss. (B)
Farnsworth & Chambers Co., Inc., P. O. Box 4301, Jackson, Miss. (B)
Flint Bros. Constr. Co., 904 Deposit Guaranty Bldg., P. O. Box 1289, Jackson, Miss. (B)
Harvey, L. A., 711 Eagle Ave., Jackson, Miss. (B)
Havard, I. W., 120 E. Center St., Canton, Miss. (B)
Howie Constr. Co., 720 Bratton St., Jackson, Miss. (B)
Jordan Constr. Co., P. O. Box 973, Jackson, Miss. (B)
King Constr. Co., P. O. Box 4408, Jackson, Miss. (B)
Reed, M. T., Constr. Co., Millsaps & Wightman Sts., P. O. Box 1066, Jackson, Miss. (B-H)
Southeastern Constr. Co., P. O. Box 3111, Jackson, Miss. (B)
Spencer Bros. Constr. Co., Natchez, Miss. (B)
Walker, W. T., Co., 516 South St., Vicksburg, Miss. (B)
Wetmore, W. G., 649 N. Mill St., P. O. Box 63, Jackson, Miss. (B)
Wise Constr. Co., P. O. Box 6235, Parkway Sta., Jackson, Miss. (B)

(c) MISSISSIPPI GULF COAST CHAPTER

President—J. C. McClendon, Jr., 2126 22d Ave., P. O. Box 807, Gulfport, Miss.
Secretary—T. H. Sneed, Coast Materials Co., P. O. Box 61, Gulfport, Miss.

Coast Materials Co., P. O. Box 61, Gulfport, Miss. (B)
Consolidated Constr. Co., P. O. Box 770, Gulfport, Miss. (B)
Farmer, M. C., 2152 Hall's Mill Rd., Mobile, Ala. (B)
G & K Constr. Co., P. O. Box 548, Pascagoula, Miss. (B)

Gaston & Sepich, 1315 2d St., Gulfport, Miss. (B)
Gray Constr. Co., P. O. Box 193, Laurel, Miss. (B)
Hoff, Frederick T., 615 Allendale Ave., Gulfport, Miss. (B)
Hopkins, Geo. P., 19th St., & L C R R Co., Gulfport, Miss. (B)
Lacoste, Inc., P. O. Box 824, Gulfport, Miss. (B)
McClendon Bldg. Service, 1639 22d St., Gulfport, Miss. (B)
McClendon, J. C., Jr., 2126 22d Ave., P. O. Box 807, Gulfport, Miss. (B)
McDonald, Carl C., Jr., Box 391, Bay Saint Louis, Miss. (B)
Meisner & Craig, Bullis Ave. & E. R. R., Gulfport, Miss. (B)
Ready Mix Concrete Co., P. O. Box 210, Pascagoula, Miss. (B)

(d) NORTH MISSISSIPPI CHAPTER

President—Lee B. Priestler, Jr., L. B. Priestler & Son, Box 869, Meridian, Miss.

Secretary-Treasurer—Wm. Roberds, Roberds Constr. Co., 1013 Washington St., P. O. Box 947, Corinth, Miss.

B. & M. Constr. Co., Meridian, Miss. (B)
Building Service Co., West Point, Miss. (B-Hvy)
Howell, B. L., & Sons Constr. Co., Philadelphia, Miss. (B)
Knost, B. L., P. O. Box 267, Meridian, Miss. (B)
Leake & Goodlett, Inc., E. Main St., Tupelo, Miss. (B)
Low, John, Jr., P. O. Box 987, Laurel, Miss. (B)
McClanahan, D. S., & Son, Box 747, Columbus, Miss. (B)
Myers & Quinn, Military Rd., Columbus, Miss. (B)
Priester, L. B., & Son, Box 869, Meridian, Miss. (B)
Roberds Constr. Co., 1013 Washington St., P. O. Box 947, Corinth, Miss. (B)
Smith & Whitaker, E. Main St., Tupelo, Miss. (B)
Staub, J. E., & Co., Fulton, Miss. (B)
Watkins & Snowden, P. O. Box 1930, Meridian, Miss. (B)
Wright & Maugh Constr. Co., 506 W. 2d St., Leland, Miss. (B)

24. MISSOURI

(a) KANSAS CITY CHAPTER

President—Robert W. Long, Long Constr. Co., 810 Rialto Bldg., Kansas City 6, Mo.

Secretary—W. W. Hutton, Rialto Bldg., 906 Grand Ave., Kansas City 6, Mo.
Telephone: Victor 8005

Bennett Constr. Co., 3252 Roanoke Rd., Kansas City, Mo. (B)
Brunn, S. R., Constr. Co., Railway Exchange Bldg., Rm. 710-712, Kansas City 6, Mo. (B)

Century Constr. Co., Inc., 2945 McGee Traf-ficway, Kansas City, Mo. (B)
Chambers-Tarbell, 1643 Bellview, Kansas City 8, Mo. (B)
Collins Constr. Co., 3160 Fairfax Rd., Kansas City 15, Kans. (B)
Dasta, Sam, & Son Constr. Co., 715 Charlotte St., Kansas City 6-E, Mo. (B)
Dreier & Son Constr. Co., 1123 Quindaro Blvd., Kansas City 2, Kans. (B)
Dunn, J. E., Constr. Co., 929 Holmes St., Kansas City 6, Mo. (B)
Ebbe Constr. Co., Trenton, Mo. (B)
Eldridge, Bob, Constr. Co., 3206 Strong Ave., Kansas City, Kans. (B)
Elliott, Hiram, Constr. Co., Suite 705-6, Commerce Trust Bldg., 922 Walnut St., Kansas City 6, Mo. (B)
Flett Constr. Co., 4325 Troost Ave., Kansas City 4, Mo. (B)
Fogel Contrs., Inc., 1212 E. 8th, Kansas City 6, Mo. (B)
Fox, H. H., Constr. Co., 540 Railway Exchange Bldg., Kansas City 6, Mo. (B)
Haren & Laughlin Constr. Co., 953 Minnesota Ave., Kansas City 14, Kans. (B)
Hoffman, Morris, Contr. Co., 1523 Broadway, Kansas City 6, Mo. (B)
Hucke, Clarence P., Co., Dwight Bldg., Kansas City 6, Mo. (B)
Inter State Constr. Co., 3621 Troost Ave., Kansas City 3, Mo. (B-Hvy)
Kelly, C. A. & R. J., 603 Porter Bldg., Broadway at 34th St., Kansas City 2, Mo. (B)
Knoop, J. K., Constr. Co., 504 Dwight Bldg., 1004 Baltimore Ave., Kansas City 6, Mo. (B)
Koch Constr. Co., 19th & Frederick Ave., St. Joseph, Mo. (B)
Largen, L. J., Constr. Co., 3011 Independence Blvd., Kansas City, Mo. (B)
Long Construction Company, 810 Rialto Bldg., Kansas City 6, Mo. (B-Hvy)
Messina Bros. Constr. Co., Inc., 1200 E. 8th St., Kansas City, Mo. (B)
Miller-Stauch Constr. Co., 322 Railway Exchange Bldg., Kansas City 6, Mo. (B)
Patti, S., Constr. Co., Inc., 1340 Admiral Blvd., Kansas City 6, Mo. (B)
Quinlan Constr. Co., 1309 Broadway, Kansas City, Mo. (B)
Rau Constr. Co., 2409 Harrison, Kansas City 8, Mo. (B)
Rawlings, Wm. S., Co., 1004 Forest Ave., Kansas City 6, Mo. (B)
Scheperle, Roy A., Constr. Co., 527 Madison St., Jefferson City, Mo. (B)
Schweiger Constr. Co., 1525 Michigan Ave., Kansas City 1, Mo. (B)
Sharp Bros. Constr. Co., The, 1014 E. 19th St., Kansas City, Mo. (B)
Siewers Constr. Co., 215 E. Main St., Sedalia, Mo. (B)
Swenson Constr. Co., 3305 Terrace St., Kansas City 2, Mo. (B)
Universal Constr. Co., 424 Scarritt Bldg., Kansas City 6, Mo. (B)
Weeks Constr. Co., Inc., 1814 Harrison, Kansas City 8, Mo. (B)
Winn-Senter Constr. Co., 430 Railway Exchange Bldg., Kansas City 6, Mo. (B)

A.G.C. DIRECTORY

MISSOURI—Continued

(b) ASSOCIATED GENERAL CONTRACTORS OF MISSOURI

President—Robert M. Hoover, Kansas City Bridge Co., 928 Broadway, Kansas City 5, Mo.

Manager—E. C. L. Wagner, Hotel Governor Bldg., Jefferson City, Mo.
Telephone: 6-3188

Abramson, John P., Constr. Co., 720 Savings & Loan Bldg., Des Moines 9, Iowa (H-Hvy)
Aldridge, R. G., 1604 Nebraska Ave., Kansas City 2, Kans. (H-Hvy)
Arnold, Lewis W., Rt. 2, Mexico, Mo. (H)
Atkinson, C. H., Paving Co., Chillicothe, Mo. (H-Hvy)
Ball, Lee A., Constr. Co., 2114 S. Jefferson, Springfield, Mo. (H-Hvy)
Bennett, Geo., Constr. Co., 3001 N. 7th Street Trafficway, Kansas City, Kans. (H-Hvy)
Bennett, W. H., & Reece Constr. Co., 1310 State Ave., Kansas City, Kans. (H-Hvy)
Billhorn, Bower & Peters, Inc., 7 N. Brentwood Blvd., Clayton 5, Mo. (Hvy)
Bridges Paving Co., 1411 Central Industrial Dr., St. Louis 10, Mo. (H-Hvy)
Brooks Constr. Co., Kahoka, Mo. (H)
Brosnahan, Emmet, Constr. Co., Harrisonville, Mo. (H)
Brunn Constr. Co., 1605 E. 76th St., Kansas City 5, Mo. (Hvy-RR)
Burk Constr. Co., 2106 N. Delaware, Springfield, Mo. (H)
Bushman Constr. Co., Box 107, St. Joseph, Mo. (H)
Cameron, Joyce & Co., 19 S. 7th St., Keokuk, Iowa (H-Hvy)
Carte Bros. Constr. Co., Inc., West Plains, Mo. (H)
Chappell Constr. Co., Inc., P. O. Box 581, DeSoto, Mo. (H-Hvy)
Choate, F. D., 625 W. High, Springfield, Mo. (H-Hvy)
Clark Constr. Co., 1207 S. 4th St., St. Joseph, Mo. (H)
Clarkson Constr. Co., The, 4133 Gardner Ave., Box 4924, Sta. F, Kansas City 1, Mo. (H-Hvy)
Concrete Materials & Constr. Co., Box 790, 405 Granby Bldg., Cedar Rapids, Iowa (H)
Condon-Cunningham Co., 4229 Lafayette Ave., Omaha 3, Nebr. (H-Hvy)
Conduit Constr. Co., Inc., 2317 Tennessee Ave., St. Louis 4, Mo. (Hvy)
Culp, J. F., Constr. Co., 315 W. Halsey, Maryville, Mo. (H)
Davidson, M. J., 5828 Lindenwood, St. Louis 9, Mo. (H)
Davis Constr. Co., Inc., 6th & Spring Sts., Boonville, Mo. (H-Hvy)
Feeney Constr. Co., 7th & Olive Sts., St. Joseph, Mo. (H)
Foreman, C. S., Co., 1900 Armour Rd., North Kansas City, Mo. (H-Hvy)
GESCO, Inc., P. O. Box 364, Louisiana, Mo. (H)

Granite Bituminous Paving Co., 3943 Duncan Ave., St. Louis 10, Mo. (H)
Grantwood Constr. Co., Inc., 7952 Rock Hill Rd., St. Louis 23, Mo. (H-Hvy)
Graven, Leland R., 1515 N. Lyon, Springfield, Mo. (H-Hvy)
Griesemer Constr. Co., Rt. 2, Box 246, Springfield, Mo. (H-Hvy)
Groves, S. J., & Sons Co., P. O. Box 1059, Springfield, Ill. (H-Hvy)
Hamilton, Gordon, Constr. Co., Inc., 505 Waldheim Bldg., 6 E. 11th St., Kansas City 6, Mo. (Hvy)
Harlin, E. L., West Plains, Mo. (H)
Harrison Engr. & Constr. Corp., 4638 J. C. Nichols Pkwy., Kansas City 2, Mo. (H-Hvy)
Hayes, L. W., Inc., 4550 Main St., Kansas City 2, Mo. (H)
Hedges Constr. Co., 217 Holland Bldg., Springfield, Mo. (H-Hvy)
Hites, L. V., Co., & M. W. Watson, 214 Grand Avenue Bank Bldg., Kansas City 8, Mo. (H-Hvy)
Horton, G. V., 941 S. Pickwick, Springfield, Mo. (H-Hvy)
Houge, R. S., 1145 S. Florence Ave., Springfield, Mo. (H-Hvy)
Hough-Cowgur & Co., 320 N. 4th St., St. Louis, Mo. (Hvy)
Howard Constr. Co., 1504 N. Osage St., Sedalia, Mo. (H)
Kansas City Bridge Co., 928 Broadway, Kansas City 5, Mo. (Hvy)
Kiewit, Peter, Sons Co., Southeast Sta., Wichita 17, Kans. (H-Hvy)
Kirkwood Constr. Co., 817 E. Monroe, Kirkwood, Mo. (H)
Kissick & Son Constr. Co., Hickman Mills, Mo. (H)
Knutson-Gould Constr. Co., 405 Congress Bldg., 3527 Broadway, Kansas City 2, Mo. (H)
Koss Construction Company, 205 Farm Bureau Bldg., Des Moines 9, Iowa (H-Hvy)
Kraus, Samuel, Co., 645 Edmund Ave., St. Louis 10, Mo. (H-Hvy)
Krehbiel Constr. Co., 411 S. Garth, Columbia, Mo. (H-Hvy)
Land Constr. Co., 1207 S. 4th St., St. Joseph 26, Mo. (H-Hvy)
Latta, J. E., Constr. Co., Inc., 6609 Latta Pl., St. Louis 20, Mo. (H-Hvy)
List, C. J., Constr. Co., 338 Railway Exchange Bldg., Kansas City 6, Mo. (H-Hvy)
List & Clark Construction Company, 729 Railway Exchange Bldg., Kansas City 6, Mo. (H-Hvy-RR)
List & Weatherly Constr. Co., 296 Plaza Theatre Bldg., 231 W. 47th St., Kansas City 2, Mo. (H-Hvy)
Luth, Fred M., & Sons, Inc., 4516 McRee Ave., St. Louis 10, Mo. (Hvy)
Lynn, W. A., Constr. Co., 1022 Trust Bldg., Lincoln, Nebr. (Hvy)
Markham & Brown, 1961 N. Industrial Blvd., Dallas, Texas (H)
Mary Constr. Co., Cape Girardeau, Mo. (Hvy)
Massman Constr. Co., 608 Midland Bldg., 1221 Baltimore, Kansas City, Mo. (Hvy)

Masters-Jackson Paving Co., 1850 E. Sunshine St., Springfield, Mo. (H)
Maxwell Bridge Co., The, P. O. Box 348, Columbus, Kans. (H)
McCarthy-Pohl Contrs., Inc., 4903 Delmar Blvd., St. Louis 8, Mo. (H-Hvy)
McGeorge, W. P., Jr., Box 248, Pine Bluff, Ark. (H-Hvy)
McLean Constr. Co., Box 205, Main Post Office, Springfield, Mo. (H-Hvy)
Menefee, W. J., Constr. Co., 419 W. Main St., Sedalia, Mo. (H)
Metcalfe Constr. Co., Inc., 505 Waldheim Bldg., 6 E. 11th St., Kansas City 6, Mo. (Hvy)
Midwest Precote Co., 7600 E. 17th St., Kansas City 3, Mo. (H)
Miller Bros. Constr. Co., 543 S. 12th St., Kansas City, Kans. (H-Hvy)
Missouri Petroleum Prods. Co., 1620 Woodson Rd., Overland 14, Mo. (H)
O'Dell & Riney Constr. Co., Box 3775, Kirkwood 22, Mo. (H-Hvy)
P. & S. Constr. Co., Macon, Mo. (H)
Pacific Bridge Co., 333 Kearny St., San Francisco 8, Calif. (H-Hvy-RR)
Payne & Dolan, Inc., 38 S. Dearborn, Chicago 3, Ill. (H)
Penzel Constr. Co., Jackson, Mo. (H-H)
Perkinson, Henry L., Constr. Co., 132 E. Douglas St., St. Louis 7, Mo. (H)
Pohl, Jos. L., Box 13, Nevada, Mo. (H-Hvy)
Porter-DeWitt Constr. Co., P. O. Box 279, Poplar Bluff, Mo. (H-Hvy)
Potashnick, R. B., P. O. Box 205, Cape Girardeau, Mo. (H)
Quinn Constr. Co., 4737 Troost Ave., Kansas City 4, Mo. (H-Hvy)
Ray & Son, Inc., 106 S. Main, Louisiana, Mo. (H)
Reno Constr. Co., Box 61, Overland Park, Kans. (H)
Riney, L. W., Constr. Co., 323 S. Maple, Hannibal, Mo. (H)
Rock Hill Asphalt & Constr. Co., 8820 Ladue Rd., P. O. Box 229, Clayton 5, Mo. (H)
Runquist Co., Savannah, Mo. (H)
St. Joseph Fuel Oil & Mfg. Co., 1207 S. 4th St., St. Joseph, Mo. (H)
Shoffner & Sons Constr. Co., 1410 Boonville, Springfield, Mo. (H-Hvy)
Southard Engr. Co., 308-09 Land Bank Bldg., Springfield, Mo. (H-Hvy)
Storms & Frew Constr. Co., 6601 E. 37th St., Kansas City 3, Mo. (H-Hvy)
Tarlton, G. L., Constr. Co., 5505 Dale Ave., St. Louis 10, Mo. (H-Hvy)
Tobin, J. A., Constr. Co., 3700 Rainbow Blvd., Kansas City 3, Kans. (H-Hvy)
Torsion Constr. Co., 1890 Woodswether Rd., Kansas City, Mo. (H-Hvy)
Trager, Frank, 401 S. Washington St., Chillicothe, Mo. (H)
Trinidad Asphalt Mfg. Co., 4030 Chouteau Ave., St. Louis, Mo. (H)
Union Constr. Co., 1401 Fairfax Trafficway, Kansas City, Kans. (H-Hvy)
Universal Bridge Co., Inc., 424 Scarritt Bldg., Kansas City, Mo. (H-Hvy)
Utey, A. T., P. O. Box 391, Cape Girardeau, Mo. (Hvy)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

MISSOURI—Continued

Vance Bros., 4923 Lawn Ave., Kansas City 4, Mo. (H)
Winston Bros. Company, 1470 Northwestern Bank Bldg., Minneapolis 2, Minn. (H-Hvy)

(c) ASSOCIATED GENERAL CONTRACTORS OF ST. LOUIS

President—H. C. Schenler, Ben Hur Constr. Co., 5100 Farlin Ave., St. Louis 15, Mo.
Manager—Henry S. Till, Jr., 1049 Sheraton Hotel, St. Louis 8, Mo.
Telephone: Jefferson 7937

(Building Division)

Alberici, J. S., Constr. Co., 1550 Irving Ave., St. Louis 20, Mo. (B)
Alport, Carlo, Constr. Co., Title Guaranty Bldg., St. Louis 1, Mo. (B)
Baebier-Rahn Constr. Co., 7703 Florentine Dr., St. Louis 21, Mo. (B)
Bank Bldg. & Equip. Corp. of America, 906 Sidney St., St. Louis 4, Mo. (B)
Brockmeyer Constr. Co., 634 N. Grand Blvd., St. Louis 3, Mo. (B)
Brunson, E. A., Constr. Co., 4052 Forest Park Blvd., St. Louis 8, Mo. (B)
Bumiller & Meyersieck, 2604 Cherokee St., St. Louis 18, Mo. (B)
Cousins, Geo. L., Contr. Co., 875 N. Skinker Blvd., St. Louis 5, Mo. (B-Hvy)
Cunliff, Wm. H. & Nelson, Co., 3320 Lindell Blvd., St. Louis 3, Mo. (B)
Dailey, H. A., Inc., 876 Hodiamont Ave., St. Louis 12, Mo. (B)
David, E. F., House Moving Co., 1548 S. Vandeventer Ave., St. Louis 10, Mo. (B)
Deal, H. B., & Co., Inc., 5517 Manchester Ave., St. Louis 10, Mo. (B)
Dickie Constr. Co., 317 N. 11th St., St. Louis 1, Mo. (B)
Dilschneider, Ray M., Inc., 8600 Manchester Rd., St. Louis 17, Mo. (B)
Elam Contr. Co., 5203 Hampton Ave., St. Louis 9, Mo. (B)
Frazier-Davis Constr. Co., 1319 Macklind Ave., St. Louis 10, Mo. (B-H-Hvy-RR)
Fruin-Colnon Contr. Co., 1706 Olive St., St. Louis 3, Mo. (B-H-Hvy-RR)
Gamble Constr. Co., 804 Pine St., St. Louis 1, Mo. (B)
Gutmann, John B., Constr. Co., Inc., 1301 S. Vandeventer Ave., St. Louis 10, Mo. (B)
Haeseler, A. H., Bldg. & Contr. Co., 2346 Palm St., St. Louis 7, Mo. (B)
Hertfelder, Wm., Inc., 4108 Clayton Ave., St. Louis 10, Mo. (B)
Hill, John, Constr. Co., 915 Olive St., St. Louis 1, Mo. (B)
Ideson Co., Inc., The, 432 S. Sappington Rd., Kirkwood 22, Mo. (B)
Jones-Kissner Constr. Co., 706 Chestnut St., St. Louis 1, Mo. (B)
Kloster Co., 4607 Beck Ave., St. Louis 16, Mo. (B)
L & R Constr. Co., 6609 Latta Pl., Wellston, St. Louis 20, Mo. (B)

Leconteour Constr. Co., 1419 Hampton Ave., St. Louis 10, Mo. (B)
MacDonald Constr. Co., 1310 S. Grand Ave., St. Louis 4, Mo. (B)
McCormack, R. C., 3936 Lindell Blvd., St. Louis 8, Mo. (B)
Mikkelsen, E. C., Constr. Co., Inc., 201 Grand Ave., Kirkwood 22, Mo. (B)
Millstone, I. E., Constr. Co., 4343 Clayton Ave., St. Louis 10, Mo. (B-Hvy)
Moeller, Geo., Constr. Co., 3007 Wyoming St., St. Louis 18, Mo. (B)
Murch-Jarvis Constr. Co., 718 Locust St., St. Louis 1, Mo. (B)
Musick, Don C., Constr. Co., 4900 Washington Blvd., St. Louis 8, Mo. (B)
Paulus, Robt., Constr. Co., 3441 Morganford Rd., St. Louis 16, Mo. (B)
Shakofsky, S. P., Constr. Co., 6601 Delmar Blvd., University City 5, Mo. (B)
Smith-Cooke Constr. Co., 4829 Easton Ave., St. Louis 13, Mo. (B)
Stockert, L. O., Co., 3928 Lindell Blvd., St. Louis 8, Mo. (B)
Tarlton, G. L., Contr. Co., 5505 Dale Ave., St. Louis 10, Mo. (B-Hvy)
Westlake Constr. Co., 1919 Railway Exchange Bldg., St. Louis 1, Mo. (B)
Willingham Constr. Co., 5245 Northrup Ave., St. Louis 10, Mo. (B)
Woermann Constr. Co., 3800 W. Pine Blvd., St. Louis 8, Mo. (B)
Wright, Robt. R., 7910 Bonhomme Ave., Clayton 5, Mo. (B)

(Highway and Heavy Division)

Aalco Heavy Hauling & Erecting Co., 3512 Page Blvd., St. Louis 6, Mo. (Hvy)
Ben Hur Constr. Co., 5100 Farlin Ave., St. Louis 15, Mo. (Hvy)
Blue, W. A., Constr. Co., 2224 Hanley Industrial Ct., St. Louis 17, Mo. (Hvy)
Bridges Paving Co., 1411 Central Industrial Dr., St. Louis 10, Mo. (H)
Conduit Contr. Co., Inc., 2317 Tennessee Ave., St. Louis 4, Mo. (Hvy)
Granite Bituminous Paving Co., 3943 Duncan Ave., St. Louis 10, Mo. (H)
Grantwood Contr. Co., 7952 Rock Hill Rd., St. Louis 23, Mo. (H-Hvy)
Hamm, Daniel, Drayage Co., 2d & Tyler Sts., St. Louis 6, Mo. (Hvy)
Hartman, John E., 740 N. Kirkwood Rd., Kirkwood 22, Mo. (H-Hvy)
Kraus, Samuel, Co., 645 Edmund Ave., St. Louis 10, Mo. (H-Hvy)
Kroeger, Harry W., Erection Co., 4829 Parker St., St. Louis 16, Mo. (Hvy)
Krummel, Paul, 7201 Weil Ave., Shrewsbury 19, Mo. (Hvy)
Latta, J. E., Constr. Co., 6609 Latta Pl., St. Louis 20, Mo. (H-Hvy-RR)
Luth, Fred M., & Sons, Inc., 4516 McRee Ave., St. Louis 10, Mo. (Hvy)
Maloney, J. T., & Son, 148 S. Elm, Webster Groves 19, Mo. (H-Hvy)
Micotto, R. C., Constr. Co., 6918 Lansdowne Ave., St. Louis 9, Mo. (H-Hvy)
Morgan, Arthur, Trucking Co., 2923 N. Broadway, St. Louis 7, Mo. (Hvy)
Mueller Erection Co., Inc., 2759 Park Ave., St. Louis 4, Mo. (Hvy)

Perkinson, Henry L., Constr. Co., 132 E. Douglas St., St. Louis 7, Mo. (H-Hvy)
R. & M. Constr. Co., 5000 Kemper Ave., St. Louis 9, Mo. (B-H-Hvy)
Riley, Wm. A., Paving & Constr. Co., Inc., 4903 Delmar Blvd., St. Louis 8, Mo. (H-Hvy)
St. Louis Steel Erection Co., 5112 Wise Ave., St. Louis 10, Mo. (B-H-Hvy)
Skrainka Constr. Co., 7173 Delmar Blvd., University City 5, Mo. (H-Hvy)
Southampton Hauling Co., 4999 Fyler Ave., St. Louis 9, Mo. (Hvy)
Vollmar Bros. Constr. Co., Foot of Victor St., St. Louis 4, Mo. (B-Hvy)
Wilson, C. T., Contr. Co., 10401 Trongate, St. Louis 15, Mo. (H-Hvy-RR)

Local Members

Glaze Construction Company, 602 N. 2d St., St. Joseph, Mo. (B)
Lehr Constr. Co., 2115 Frederick Ave., St. Joseph, Mo. (B)
Semo Constr. Co., Inc., 304 Maud St., Sikeston, Mo. (B)

25. MONTANA

(a) MONTANA CONTRACTORS' ASSOCIATION, INC.

President—Edward M. O'Neil, The O'Neil Constr. Co., P. O. Box 1151, Havre, Mont.
Secretary-Manager—J. W. Marlow, Mezzanine, Placer Hotel, Helena, Mont.
Telephone: 3061

A & W Constr. Co., Box 228, Glasgow, Mont. (H)
Arkwright, Stanley H., Inc., 1200 6th Ave., No. P. O. Box 1211, Billings, Mont. (H)
Bail, C. R., Harrison, Mont. (H)
Billings Constr. Co., 1016 Lake Elmo Rd., Billings, Mont. (H-Hvy-RR)
Birch, S., & Sons Constr. Co., 314 Ford Bldg., Great Falls, Mont. (H-Hvy)
Boespflug, J. C., Constr. Co., 1912 4th Ave., So., Seattle, Wash. (B-H)
Cabill-Mooney Constr. Co., Box 398, Butte, Mont. (B-H-Hvy)
Clifton & Applegate, Yardley, Wash. (H-Hvy-RR)
F & S Contr. Co., P. O. Box 4, Butte, Mont. (H-Hvy)
Geery, Glenn, Inc., 601 Wilma Bldg., Missoula, Mont. (H-Hvy-RR)
Groves, S. J., & Sons Co., 500 Wesley Temple Bldg., Minneapolis 3, Minn. (H-Hvy)
Halvorson, Carl M., 218 Builders Exchange Bldg., Portland, Oreg. (H-Hvy)
Hansen & Parr Constr. Co., 1103 N. Calispel, Spokane, Wash. (Hvy)
Hanson, Gordon, P. O. Box 1485, Missoula, Mont. (H-Hvy)
Heald & Christler, Inc., Box 1028, Cody, Wyo. (H)
Herrick, R. P., Co., 2712 Phillips St., Butte, Mont. (H)
Hilde Constr. Co., Inc., 3810 7th Ave., No. P. O. Box 1910, Great Falls, Mont. (H-Hvy-RR)

MONTANA—Continued

Holzworth Constr. Co., P. O. Box 158, 1st National Bank Bldg., Miles City, Mont. (B-Hvy)
 Inland Constr. Co., 3867 Leavenworth St., Omaha 5, Nebr. (H-Hvy-RR)
 James & Wunderlich, Chester, Mont. (Hvy)
 Kiely Constr. Co., Drawer 246, Butte, Mont. (H-Hvy)
 Kiewit, Peter, Sons' Co., P. O. Box 875, Sheridan, Wyo. (H-Hvy-RR)
 Kuney, Max J., Co., 120 N. Ralph St., Spokane 15, Wash. (H-Hvy-RR)
 Lalonde, Albert, Co., Sidney, Mont. (B-H)
 Lease & Leigland, 1501 N. 35th St., Seattle 3, Wash. (B-H-Hvy)
 Lewis Constr. Co., 923 10th Ave., No., Great Falls, Mont. (B)
 Lockwood, L. V., Box 227, Glasgow, Mont. (Hvy)
 Long Constr. Co., Box 1291, Billings, Mont. (H-Hvy-RR)
 Lyon Constr. Co., Clinton, Mont. (H-RR)
 Marshall, G. E., Box 308, Roundup, Mont. (H)
 McLaughlin Constr. Co., 12th & Front, P. O. Box 653, Livingston, Mont. (Hvy)
 McLaughlin, Inc., 331 Ford Bldg., P. O. Box 1824, Great Falls, Mont. (H-Hvy-RR)
 Montana Engr. & Constr. Co., Box 323, Helena, Mont. (H-Hvy-RR)
 Mortensen, Oscar J., Conrad, Mont. (RR)
 Naranche & Konda, 2000 Aberdeen St., Butte, Mont. (H)
 Nilson-Smith Constr. Co., P. O. Box 1147, Great Falls, Mont. (H-Hvy)
 Nolan, A. T., Co., 20 N. 2d St., Minneapolis 1, Minn. (H-Hvy-RR)
 Northwestern Engr. Co., 1311 St. Joe St., Box 1392, Rapid City, S. Dak. (B-H-Hvy)
 O'Brien Constr. Co., 1127 Smelter Ave., P. O. Box 1801, Great Falls, Mont. (H-Hvy-RR)
 O'Connor Constr. Co., Fromberg, Mont. (B-H)
 O'Connor Constr. Co., Inc., Box 431, Kalispell, Mont. (H-Hvy)
 O'Neil Constr. Co., The, P. O. Box 1151, Havre, Mont. (H-Hvy)
 Powell, E. C., 2626 4th Ave., No., Great Falls, Mont. (H)
 Punnea, Forrest D., P. O. Box 882, Helena, Mont. (H)
 Richardson, Lou, Box 335, Miles City, Mont. (H)
 Riedesel Constr. Co., 2325 9th Ave., No., Box 477, Billings, Mont. (B-H-Hvy-RR)
 Schye & Sullivan, White Sulphur Springs, Mont. (B-H-Hvy)
 Shannon, Chas., Co., 502 S. Washington St., Butte, Mont. (H-Hvy)
 Snyder, Chas. B., P. O. Box AA, Black Eagle, Mont. (H)
 Standard Constr. Co., Box 749, Bozeman, Mont. (H-Hvy)
 Staunton, Thos., 816 1st National Bank Bldg., P. O. Box 1745, Great Falls, Mont. (H)

Taggart Constr. Co., Inc., P. O. Box 560, Cody, Wyo. (H-Hvy)
 Thomas Constr. Co., 1615 6th Ave., No., Billings, Mont. (H-Hvy)
 Utility Bldrs., Inc., 431 Ford Bldg., P. O. Box 1154, Great Falls, Mont. (Hvy)
 Walling Constr. Co., 408 Huron St., P. O. Box 19, Lewistown, Mont. (H-Hvy)
 Woodward, L. A., Constr. Co., 1203 Wyoming St., Missoula, Mont. (H-Hvy-RR)

(b) MONTANA BUILDING CHAPTER

President—Frank P. Messmer, Haggerty-Messmer Co., 519 W. Aspen, Box 334, Bozeman, Mont.
Secretary-Manager—J. W. Marlow, Mezzanine, Placer Hotel, Helena, Mont.
Telephone: 3061

Anderson, P. B., & Co., Inc., Cut Bank, Mont. (B)
 Barney, L. P., Constr. Co., 1100 Waukesha Ave., P. O. Box 1073, Helena, Mont. (B)
 Boespflug, J. C., Constr. Co., Inc., P. O. Box 1237, Billings, Mont. (B)
 C. and H. Constr. Co., 1st National Bank Bldg., P. O. Box 158, Miles City, Mont. (B-H-Hvy-RR)
 Cahill-Mooney Constr. Co., 1220 E. Front St., P. O. Box 398, Butte, Mont. (B-Hvy)
 Carlson, Arved, 1033 North Ave., W., Missoula, Mont. (B)
 Carson Constr. Co., 1236 E. 6th Ave., P. O. Box 1153, Helena, Mont. (B)
 Fuglevand, Chris, & Son, 519 4th St., P. O. Box 672, Havre, Mont. (B)
 Haggerty-Messmer Co., 519 W. Aspen, Box 334, Bozeman, Mont. (B-Hvy)
 Hardy Constr. Co., 420 N. 25th St., P. O. Box 1203, Billings, Mont. (B)
 Hitz Constr. Co., Box 1563, Billings, Mont. (B-H)
 Holm Constr. Co., Box 1107, Glendive, Mont. (B)
 Johnson, Al, 326 Allen St., Helena, Mont. (B)
 Johnson, I. M., 239 E. Babcock, P. O. Box 499, Bozeman, Mont. (B)
 Lowe Constr. Co., 2325 9th Ave., No., P. O. Box 883, Billings, Mont. (B)
 McKinnon-Decker Co., 1520 Hauser Blvd., P. O. Box 517, Helena, Mont. (B)
 Mitchell, C. E., & Sons, Inc., 308 4th Ave., So., Great Falls, Mont. (B)
 Pappin Constr. Co., 700 2d St., So., Great Falls, Mont. (B)
 Pew Constr. Co., 301 Walnut St., P. O. Box 1222, Missoula, Mont. (B)
 Siert, John, 324 Missouri St., P. O. Box 493, Chinook, Mont. (B)
 Sletten Constr. Co., 1301 10th Ave., No., P. O. Box 1188, Great Falls, Mont. (B)
 Sterhan Constr. Co., 103 S. Merrill, Box 1247, Glendive, Mont. (B)
 Underseth, Theo, 800 Breckenridge, Helena, Mont. (B)

26. NEBRASKA

(a) NEBRASKA BUILDING CHAPTER

President—John H. Miller, Olson Constr. Co., 410 S. 7th St., Lincoln 8, Nebr.
Secretary—Virgil J. Haggart, 1130 1st National Bank Bldg., Omaha 2, Nebr.
Telephone: Jackson 1196

Assenmacher Constr. Co., 625 N. 17th St., P. O. Box 246, Lincoln, Nebr. (B)
 Beckenhauer Bros., 0102 S. 5th St., Norfolk, Nebr. (B)
 Best, Glenn R., Constr. Co., 617 Bross St., Longmont, Colo. (B)
 Borchman, A., Sons, 4601 Douglas St., Omaha 3, Nebr. (B)
 Brown & Denesia Constr. Co., 520 S. 9th Ave., Broken Bow, Nebr. (B)
 Carlstrom Bros., P. O. Box 267, Fremont, Nebr. (B)
 Carmichael & James, 1316 W. 12th St., Hastings, Nebr. (B)
 Christ, Carl W., 624 Jackson, Sidney, Nebr. (B)
 Claussen, John, & Sons, 803 S. Clark St., Grand Island, Nebr. (B)
 Cook, Geo., Constr. Co., 1740 Vine St., Lincoln, Nebr. (B)
 Cooper Constr. Co., 110 S. 46th St., Omaha, Nebr. (B)
 DeBuse Bros., Inc., Box 86, Irvington, Nebr. (B)
 Foster-Smetana Co., 4360 Nicholas St., Omaha 3, Nebr. (B)
 Fricke, H. C., 816 W. 4th St., Box 185, Alliance, Nebr. (B)
 Fullen Constr. Co., 315 W. Railroad St., P. O. Box 69, Scottsbluff, Neb. (B-H)
 Geer-Maurer Constr. Co., 3400 W. 2d, Grand Island, Nebr. (B)
 Gilmore Constr. Co., 1207 N. 11th St., Omaha, Nebr. (B)
 Jones, W. Boyd, Co., 111 S. 40th St., Omaha, Nebr. (B)
 Kealy Constr. Co., 1300 E. 7th St., Hastings, Nebr. (B)
 Kiewit, Peter, Sons' Co., 1024 Omaha National Bank Bldg., Omaha 2, Nebr. (B)
 Kingery Constr. Co., 1941 Y St., Box 1723, Lincoln, Nebr. (B)
 Korshoj Constr. Co., Blair, Nebr. (B-H)
 Lof, John, & Sons, 4012 Lake St., Omaha 4, Nebr. (B)
 Lueder Constr. Co., 601 Redick Tower Bldg., Omaha 2, Nebr. (B)
 Miller Excavating Co., Inc., 5328 Center St., Omaha, Nebr. (B-H)
 Olson Constr. Co., 410 S. 7th St., Lincoln 8, Nebr. (B-H)
 Parsons Constr. Co., 2512 Deer Park Blvd., Omaha, Nebr. (B)
 Rorick Constr. Co., 905 S. 20, Omaha 2, Nebr. (B)
 Shelton & Son, 6204 Maple St., Omaha 4, Nebr. (B)
 Stitt, H. W., Constr. Co., 3716 Lake St., Omaha, Nebr. (B)
 Westcott-Bowen Constr. Co., 1734 R St., Lincoln, Nebr. (B-Hvy)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

NEBRASKA—Continued

Wilson Constr. Co., 727 S. 11th St., Box 2046, Lincoln 1, Nebr. (B)
Woerth, Herman R., 2314 21st St., Columbus, Nebr. (B)

(b) NEBRASKA CHAPTER

President—Clarence Isaacson, Norfolk Bridge & Constr. Co., 300 N. 7th St., Norfolk, Nebr.
Manager—James Critchfield, 619 Trust Bldg., Lincoln 8, Nebr.
Telephone: 2-6210

Abel Constr. Co., 1815 "Y" St., Lincoln, Nebr. (H-RR)
Ace Sand & Gravel Co., Inc., P. O. Box 84, Columbus, Nebr. (H)
Behrens Constr. Co., 919 Court St., P. O. Box 373, Beatrice, Nebr. (H)
Berggren, Harry F., & Sons, Inc., 1105 3d Ave., Box 64, Scottsbluff, Nebr. (H-Hvy)
Biba, W. A., Engr. Co., Geneva, Nebr. (H)
Chambers Constr. Co., 621 Trust Bldg., P. O. Box 1587, Lincoln, Nebr. (Hvy)
Christensen Sand & Gravel Co., First National Bank Bldg., Fremont, Nebr. (H)
Claussen-Olson-Benner, Inc., 119 S. East Ave., Holdrege, Nebr. (H-Hvy)
Concrete Materials & Constr. Co., 405 Granby Bldg., Cedar Rapids, Iowa (H)
Condon-Cunningham Co., 4229 Lafayette Ave., Omaha 3, Nebr. (H-Hvy)
DeLong, C. L., 1416 1st Corso, Nebraska City, Nebr. (Hvy)
Devoss Bros., Box 851, 2016 W. Division, Grand Island, Nebr. (H-Hvy-RR)
Dobson Bros. Constr. Co., 512 1st National Bank Bldg., Lincoln, Nebr. (H-Hvy)
Dobson & Robinson, 824 1st National Bank Bldg., Lincoln 8, Nebr. (H-Hvy)
Dugdale Constr. Co., 1331 S. 20th St., Omaha, Nebr. (B-H-Hvy)
Gerhold Co., Columbus, Nebr. (H)
Green, Ralph, & W. L. Groesbeck, 1020 N. 14th St., Lincoln, Nebr. (H)
Grosshans & Petersen, Inc., Marysville, Kans. (H-RR)
H. & M. Equip. Co., Inc., 120 S. Hastings Ave., Hastings, Nebr. (H)
Inland Constr. Co., 3867 Leavenworth St., Omaha 5, Nebr. (H-Hvy)
Johnson, H. W., Dakota Ave., So., P. O. Box 218, South Sioux City, Nebr. (H)
Keim Constr. Co., Tecumseh, Nebr. (H)
Kiewit, Peter, Sons' Co., 1024 Omaha National Bank Bldg., Omaha 2, Nebr. (B-H-Hvy)
Lee & Johnson, 220 Insurance Exchange Bldg., Sioux City 13, Iowa (H)
Lyman Richey Sand & Gravel Corp., 750 Omaha National Bank Bldg., Omaha 2, Nebr. (H)
Lynn, W. A., Constr. Co., 1022 Trust Bldg., Lincoln, Nebr. (Hvy)
Middlestates Constr. Co., 1006 W. O. W. Bldg., Omaha 2, Nebr. (H)
Monarch Engr. Co., Falls City, Nebr. (H-Hvy)

National Constr. Co., 1335 S. 20th St., Omaha 2, Nebr. (H)
Nebraska Constr. Co., Farmer's State Bank Bldg., P. O. Box 584, Lexington, Nebr. (H-Hvy)
Nichols Constr. Co., Geneva, Nebr. (H)
Norfolk Bridge & Constr. Co., 300 N. 7th St., Norfolk, Nebr. (H-Hvy)
Northwestern Engr. Co., P. O. Box 567, Denver 1, Colo. (H)
Orshek, Francis R., Co., 515 First National Bank Bldg., Fremont, Nebr. (B-H)
Overland Sand & Gravel Co., Stromsburg, Nebr. (H)
Pentzien, Inc., 1504 Dodge St., Omaha 2, Nebr. (Hvy)
Platte Valley Constr. Co., 900 S. Adams St., P. O. Box 595, Grand Island, Nebr. (H-Hvy-RR)
Read, A. H., Co., 706 W. 19th St., Box 357, Cheyenne, Wyo. (H-Hvy)
Rentlor Co., Inc., 124½ W. 3d St., P. O. Box 656, Grand Island, Nebr. (B-H-Hvy)
Risk Pipe & Constr. Co., Nebraska City, Nebr. (H-Hvy)
Roberts Constr. Co., 1018 Trust Bldg., Lincoln, Nebr. (H)
San-Ore Constr. Co., 200 E. Kansas, McPherson, Kans. (H)
Sawyer, Paul, Sand & Gravel Co., Holdrege, Nebr. (H)
Stump, Robt., 4312 "B" St., Lincoln, Nebr. (H)
Swanson, Arnold, & Co., P. O. Box 133, Hastings, Nebr. (B-H-Hvy)
Theisen Bros., Osmond, Nebr. (H)
Werner, Geo. K., & Son, Clay Center, Nebr. (H)
Western Contracting Corporation, 400 Benson Bldg., Sioux City 15, Iowa (H-Hvy-RR)

27. NEVADA

(a) NEVADA CHAPTER

President—Francis R. Smith, Ready-Mix Concrete Co., P. O. Box 1408, Reno, Nev.
Secretary-Manager—Edward L. Pine, P. O. Box 478, Reno, Nev.
Telephone: Reno 23525

Boudwin, Walker, Constr. Co., 624 E. 4th St., Reno, Nev. (B)
Dieterich, Clarence, Co., 122 Rock St., Reno, Nev. (H-Hvy)
Dinwiddie Constr. Co., Inc., 210 Crocker Bldg., San Francisco 4, Calif. (B)
Dodge Constr., Inc., Fallon, Nev. (H-Hvy)
Foley Bros., Inc., P. O. Box 299, Ruth, Nev. (Hvy)
Games, Earl E., 1380 Humboldt Ave., Reno, Nev. (H-Hvy)
Isbell Constr. Co., Inc., S. Virginia Rd., P. O. Box 2351, Reno, Nev. (H-Hvy)
MacDonald, Young & Nelson, Inc., 351 California St., San Francisco 4, Calif. (B-H-Hvy)
Manuel, Paul, P. O. Box 358, Reno, Nev. (B)

McKenzie Constr. Co., 1061 Skyline Blvd., Reno, Nev. (B)
Miller, Geo. E., P. O. Box 1728, Reno, Nev. (H-Hvy)
Murphy, J. M., Constr. Co., 701 W. Bonanza Rd., Las Vegas, Nev. (H)
Nevada Engr. & Constr. Co., 2655 Dickerson Rd., Reno, Nev. (B)
Precon Co., Inc., Byington Bldg., Reno, Nev. (B)
Probasco, Geo. A., Inc., 150 N. Center, Reno, Nev. (B)
Ramsey Bros. Bldrs., P. O. Box 2266, Reno, Nev. (B)
Ready-Mix Concrete Co., P. O. Box 1408, Reno, Nev. (B-H-Hvy)
Roberts, John H. C., 253 E. Taylor St., Reno, Nev. (B)
Savage, John L., 1503 N. Carson St., Carson City, Nev. (H-Hvy)
Schilling, G. E., Engr. & Constr. Co., Inc., 201 Sunnyside Dr., Reno, Nev. (H-Hvy)
Schwake, M. G., Constr. Co., Gardnerville, Nev. (H-Hvy)
Silver State Constr. Co., Inc., Fallon, Nev. (H-Hvy)
T & T Engr. Co., 1275 E. 2d St., Reno, Nev. (B)
Weil Constr. Co., 299 Washington St., Reno, Nev. (B)
Wells Cargo, Inc., P. O. Box 1511, 1800 E. 4th St., Reno, Nev. (H-Hvy)

(b) SOUTHERN NEVADA BUILDERS CHAPTER

President—Ted Longley, Longley Constr. Co., Inc., 421 Bonanza Rd., Box 2104, Las Vegas, Nev.
Secretary-Treasurer—Richard D. Chase, Lembke Constr. Co., P. O. Box 1391, Las Vegas, Nev.
Telephone: 6540

Daum, R. J., 6803 West Blvd., Ingelwood, Calif. (B)
Davey, Ben O., P. O. Box 2106, Las Vegas, Nev. (B)
Desert Development, Inc., 1800 S. 10th St., Las Vegas, Nev. (B)
Lembke-Clough & King, Inc., P. O. Box 1391, Las Vegas, Nev. (B)
Lembke Constr. Co., P. O. Box 1391, Las Vegas, Nev. (B)
Longley Constr. Co., Inc., 421 Bonanza Rd., Box 2104, Las Vegas, Nev. (B)
Miller, Haynes, Smith, Inc., Box 1, Henderson, Nev. (B)
Moss, Rex N., 2000 Fremont St., Las Vegas, Nev. (B)
Shelton Mill & Constr. Co., Box 2046, Las Vegas, Nev. (B)
Stocks Mill & Supply Co., 750 Fremont, Las Vegas, Nev. (B)
Tiberti, J. A., Constr. Co., 1233 Comstock, P. O. Box 29, Las Vegas, Nev. (B)
Ward and Ward, P. O. Box 1862, Las Vegas, Nev. (B)
Webb, Del E., Constr. Co., P. O. Box 4066, Phoenix, Ariz. (B-Hvy)

28. NEW HAMPSHIRE

(a) ASSOCIATED GENERAL CONTRACTORS OF NEW HAMPSHIRE & VERMONT

President—John Jacobson, Jr., Davison Constr. Co., 1306-A Elm St., Manchester, N. H.
Executive Secretary—Rowland Oakes, 10 Acquilla Bldg., 3 Pleasant St., Concord, N. H.
Telephone: 1561

Adams, W. M., & Sons, Riverside Ave., Burlington, Vt. (B)
 Bedders, Wm. E., Brookline, N. H. (H)
 Bisson, W. M., & Son, 28 Riverside Ct., Laconia, N. H. (B)
 Cass-Warner Corp., 21 Pearl St., Essex Junction, Vt. (B-Hvy)
 Curran, Kenneth E., Inc., Littleton, N. H. (H-Hvy)
 Daniels Constr. Co., 10 Mascoma St., Lebanon, N. H. (H)
 Davison Constr. Co., 1306-A Elm St., Manchester, N. H. (B)
 Davison, David W., 449 Hayward St., Manchester, N. H. (B)
 Earle & Merry, Inc., 42 Burnham Ave., P. O. Box 128, Rutland, Vt. (H-Hvy)
 Foster & Bamford, Inc., 18 N. Main St., Concord, N. H. (B)
 Garon Constr. Co., Inc., 623 Clay St., Manchester, N. H. (B)
 Harvey Constr. Co., Inc., 450 Valley St., Manchester, N. H. (B)
 Hodgdon, Edwin J., Mirror Lake, N. H. (B)
 Landers & Griffin Co., 800 Islington St., Portsmouth, N. H. (H)
 MacMillin Co., The, 17 Main St., Keene, N. H. (B)
 Manchester Sand, Gravel & Cement Co., Inc., 839 Elm St., Manchester, N. H. (H-Hvy)
 Maxam Co., The, 94 Hanover St., Portsmouth, N. H. (B)
 Miller Constr. Co., Windsor, Vt. (Hvy)
 Morse, W. H., Constr. & Lumber Co., Inc., 722 Main St., Bennington, Vt. (B-H-Hvy)
 Noyes, Donald C., 59 Terrill St., Rutland, Vt. (B)
 O'Bryan, Howard Z., 24 Prospect St., Brattleboro, Vt. (B)
 Reed & Stone, Essex Junction, Vt. (B)
 Robie Constr. Co., Inc., Pike Ave., Manchester, N. H. (B)
 Ross, Jas., Assocs., Inc., 84 Washington St., Concord, N. H. (B)
 Stebbins, Blanchard, 330 Lincoln St., Manchester, N. H. (B)
 Swanburg Constr. Corp., 61 Amherst St., Manchester, N. H. (B)
 Swett, E. D., Winchester, N. H. (H)
 Trumbull-Nelson Co., Inc., 11 Lebanon St., Hanover, N. H. (B)
 Tucker, F. A., Inc., 38½ Center St., Rutland, Vt. (Hvy)
 Weaver Bros., Constr. Co., 259 S. Main St., Concord, N. H. (H)

Whitcomb, Arthur, Constr. Co., Inc., 725 Main St., Keene, N. H. (H)
 Whitcomb, Frank W., Constr. Corp., North Walpole, N. H. (H-Hvy)
 Wright & Morrissey, Inc., 158 Bank St., Burlington, Vt. (B-Hvy)

29. NEW JERSEY

(a) ASSOCIATED GENERAL CONTRACTORS OF NEW JERSEY

President—Jack H. Warner, Marsellis-Warner Corp., 10 Baldwin St., Montclair, N. J.
General Manager—Hugh J. Connelly, 52 W. State St., Trenton 8, N. J.
Telephone: Trenton 5-6109

Accchione Contr. Co., 1607-9 McKean St., Philadelphia, Pa. (H-Hvy)
 Agabiti Bros., Inc., 125 Swan St., Trenton, N. J. (H-Hvy)
 Alward, H. W., Inc., 161 Mt. Airy Rd., P. O. Box 926, Bernardsville, N. J. (H-Hvy)
 American Paving Corp., Foot of Bessemer St., Newark, N. J. (H)
 Arnolt Bros., Inc., 177 Mali Dr., North Plainfield, N. J. (H-Hvy)
 Atlantic County Constr. Co., Virginia & Mediterranean Aves., Atlantic City, N. J. (H-RR)
 Bancheri, Chas., 227 Central Ave., Hammon-ton, N. J. (H-Hvy)
 Barrett, Albert E., 2485 E. State St., Tren-ton 9, N. J. (H)
 Brann & Stuart Co., 771 Broad St. Sta. Bldg., Philadelphia 2, Pa. (B-H-Hvy-RR)
 Brookfield Constr. Co., Inc., 521 5th Ave., New York 17, N. Y. (Hvy)
 Bucks County Constr. Co., Inc., Monroe St., Penn-del, Pa. (Hvy)
 Bugbee, Newton A. K., & Co., Oakland St. & Norman Ave., Trenton 8, N. J. (B-H-Hvy)
 Burns, J. P., Box 91, Dumont, N. J. (H-Hvy)
 Buttfeld & Eames, Inc., P. O. Box 468, Plainfield, N. J. (Hvy)
 C & T Constr. Co., 209 Burrwood Ave., Box 12, Collingswood, N. J. (H-Hvy)
 Campanella, Edw. P., 121 S. White Horse Pike, Hammonton, N. J. (H)
 Canuso, Francis A., & Son, 173 W. Roosevelt Blvd., Philadelphia, Pa. (H-Hvy)
 Cayuga Foundation Corp., The Underwood Bldg., 30 Vesey St., New York 7, N. Y. (H-Hvy-RR)
 Chapman, J. F., & Son, Inc., 1303 N. Broad St., Hillside, N. J. (B)
 Consolidated Constr. Co., Inc., 28 Cooper St., Woodbury, N. J. (B-Hvy)
 Construction Aggregates Corp., 1 E. 42d St., New York, N. Y. (H)
 Construction Service Co., Lincoln Blvd., P. O. Box 311, Bound Brook, N. J. (Hvy)
 Cox, P. T., Constr. Co., Inc., 271 Church St., New York 7, N. Y. (H-Hvy)
 Cunningham, A. J., & Sons, 370 Newkirk Ave., Trenton, N. J. (H-Hvy)
 Delta Constr. Co., National Bank Bldg., Hope-well, N. J. (H)

Domenick, Frank, & Co., Inc., 124 N. 7th St., Newark, N. J. (Hvy)
 Ell-Dorer Contr. Co., 644 Nye Ave., Irvington, N. J. (B-H-Hvy)
 Erie Contr. & Engr. Corp., Passaic National Bank Bldg., Passaic, N. J. (RR)
 Ferrante, Anthony, & Son, Inc., 33 Mt. Airy Rd., Bernardsville, N. J. (B-H)
 Fox, Delton T., 197 Irving Ave., Bridgeton, N. J. (B-H)
 Franklin Contr. Co., 12 Central Ave., Newark 2, N. J. (H-Hvy)
 Frapaul Constr. Co., Essex St., Box 188, Rochelle Park, N. J. (H-Hvy)
 Fritz, W. G., Co., Inc., 69 Main St., West Orange, N. J. (Hvy)
 Fusco, J. R., Inc., 20 Glenridge Ave., Mont-clair, N. J. (H)
 Groves, S. J., & Sons Co., Rt. 35 at Port Read-ing RR., P. O. Box 485, Woodbridge, N. J. (H-Hvy)
 Hansen, Ole, & Sons, Inc., 22 N. Franklin Ave., Pleasantville, N. J. (Hvy)
 Harrison, H. L., & Son, Inc., P. O. Box 240, Westfield, N. J. (H-Hvy)
 Hebler-Snyder Co., 309 Park Ave., Plainfield, N. J. (H)
 Hess Bros. Excavating Contrs., Inc., Deer-field Rd., Parlin, N. J. (H-Hvy)
 Hesse, Chas. J., Inc., Palmer St., Belford, N. J. (H)
 Holmes & English, 1465 Palisade Ave., West Englewood, N. J. (H-Hvy)
 Hubbell, O. W., Oneida St., New Hartford, N. Y. (H)
 Jaggard, R. B., Elmwood Rd., Marlton, N. J. (H-Hvy)
 Johnson, Drake & Piper, Inc., 86 Trinity Pl., New York 6, N. Y. (H-Hvy)
 Kaufman Constr. Co., Inc., 4000 Pulaski Ave., Philadelphia 40, Pa. (H)
 Kero, Peter W., Inc., 615 Newark Ave., Lyndhurst, N. J. (H-Hvy)
 Kolyn Constr. Co., 207 Commonwealth Bldg., P. O. Box 916, Trenton, N. J. (H-Hvy-RR)
 Lugano Bros., Inc., 172 Passaic Ave., Belle-ville 9, N. J. (H)
 Lupton, A. H., Jr., Cumberland National Bank Bldg., Bridgeton, N. J. (H)
 Malanka, C. F., & Sons, Inc., 1317 Bergenline Ave., Union City, N. J. (B-H-Hvy)
 Marsellis-Warner Corp., 10 Baldwin St., Mont-clair, N. J. (H)
 McGraw, Jas., Co., 1010 Commercial Trust Bldg., Philadelphia 2, Pa. (H-Hvy-RR)
 McGreevey, John F., & Co., Inc., 141 N. Main St., Manasquan, N. J. (H)
 Morehouse, E. R., Co., 1400 Pine St., Cam-den, N. J. (H-Hvy-RR)
 Napp-Grecco Co., The, 241 Riverside Ave., Newark 4, N. J. (H-Hvy-RR)
 National Structures Corp., 10 E. 40th St., New York 16, N. Y. (B)
 Nesto Constr. Co., 100 Riverside Ave., New-ark 4, N. J. (H)
 New Jersey Asphalt & Paving Co., Foot of Howell St., Jersey City, N. J. (H-Hvy)
 Nicol, Thos., & Co., R. D. Box 135, Farming-dale, N. J. (H)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

NEW JERSEY—Continued

Pangia Constr. Co., White Horse Pike, Atco, N. J. (H)
 Park Concrete Co., 725 Park Ave., Palmyra, N. J. (B-Hvy)
 Perelli Contr. Co., Inc., Box 81, Pemberton, N. J. (H)
 Petrillo, Edw. J., Inc., 64 W. Front St., Red Bank, N. J. (B-Hvy)
 Poirier & McLane Corp., 33 W. 42d St., New York 18, N. Y. (Hvy)
 Reid Contr. Co., Inc., P. O. Box 215, Woodbridge, N. J. (H)
 Road Contr. Co. of Westfield, 714 Central Ave., Westfield, N. J. (H)
 Rogers, Jos. W., Succasunna, N. J. (H-Hvy)
 Salmon Bros., Inc., Netcong, N. J. (H-Hvy)
 Senior and Palmer, Inc., 1999 Park Ave., New York 35, N. Y. (Hvy-RR)
 Sette Engr. Co., 239 State Hwy. 17, Paramus, N. J. (H-Hvy)
 Standard Bitulithic Co., Foot of Brill St. & Passaic River, Newark 5, N. J. (H)
 Steers, J. Rich, Inc., 17 Battery Pl., New York 4, N. Y. (Hvy)
 Stone, Arthur E., Doughty Rd. & Reading R. R., Pleasantville, N. J. (H)
 Straco Constr. Co., 130 N. Broadway, Camden, N. J. (H-Hvy-RR)
 Tully & DiNapoli, Inc., & Gull Contr. Co., Inc., 127-50 Northern Blvd., P. O. Box 145, Flushing, N. Y. (H-Hvy-RR)
 Union Bldg. & Constr. Corp., P. O. Box 58, Passaic, N. J. (H-Hvy)
 Union Paving Co., 1227 N. Broad St., Philadelphia, Pa. (H-Hvy)
 Utility Constr. Co., Div. of Aetna Ind. Corp., 84 Paterson St., New Brunswick, N. J. (H-Hvy)
 Versaggi Bros. Constr. Co., Wildwood, N. J. (H-Hvy)
 Villa Contr. Co., Inc., P. O. Box 149, Westfield, N. J. (H-Hvy)
 Villard Contr., Inc., 25 Main St., Hastings-on-Hudson, N. Y. (B-H-Hvy-RR)
 Warranty Paving Co., P. O. Box 425, Summit, N. J. (H)
 Waters, John N., 209 Park Pl., Audubon, N. J. (H-Hvy-RR)
 Weldon Contr. Co., 141 Central Ave., Westfield, N. J. (B-H)
 Whitmyer Bros., R.F.D. #3, Hammonton, N. J. (H)
 Wikstrom, A. S., P. O. Box 217, Skaneateles, N. Y. (H-Hvy-RR)
 Willis Constr., Branchville, Sussex Co., N. J. (H)
 Winans Contr. Co., Inc., The, 601 W. Elizabeth Ave., Linden, N. J. (H)
 Young Foundation Corp., 328 Teaneck Rd., Teaneck, N. J. (B-H-Hvy-RR)
 Zimmerman, Louis, Jr., 285 Florence Ave., Hillside 5, N. J. (B)
 Ziobro, Stanley J., Inc., 158 Orchard St., East Rutherford, N. J. (H-Hvy)

Local Members

Becker Constr. Co., 361 Grove St., Newark 3, N. J. (B)
 Blanchard, Wm. L., Co., 45 Poinier St., Newark 5, N. J. (B)
 Briscoe, Frank, Co., Inc., 287 S. 19th St., Newark 3, N. J. (B)

Brotherton, Fred J., Inc., 185 Atlantic St., Hackensack, N. J. (B)
 Douglas, Damon G., Co., 605 Broad St., Newark 2, N. J. (B)
 Jantelle, P., Inc., 571 S. 10th St., Newark 3, N. J. (B)
 LaFountain, A. A., Inc., 161 Beech St., Hackensack, N. J. (B)
 Lewis, Anthony, Inc., 14-22 Newark Way, Maplewood, N. J. (B)
 Mahony-Troast Constr. Co., Inc., 790 Bloomfield Ave., Clifton, N. J. (B)
 Malmel Construction Company, 304 Meeker Ave., Newark, N. J. (B)
 Markland, M. B., Contracting Co., Boardwalk Arcade Bldg., Atlantic City, N. J. (B-Hvy-RR)
 Matthews Construction Company, 296 Alexander St., Princeton, N. J. (B)
 Salmond, Scrimshaw Constr. Co., 526 Elm St., Arlington, N. J. (B)
 Waldron, Edward M., Incorporated, 42 Park Pl., Newark 2, N. J. (B)

30. NEW MEXICO**(a) ASSOCIATED CONTRACTORS OF NEW MEXICO**

President—B. B. Armstrong, Armstrong & Armstrong, Box 873, Roswell, N. Mex.
Manager—C. O. Faulk, Rm. 73, Sena Plaza, P. O. Box 1693, Santa Fe, N. Mex.
Telephone: 3-4812

Adams, Jack, P. O. Box 610, Los Alamos, N. Mex. (H)
 Allison & Haney, P. O. Box 1507, Albuquerque, N. Mex. (H-Hvy)
 Armstrong & Armstrong, Box 873, Roswell, N. Mex. (H)
 Brown Contr. Co., P. O. Box 1479, Albuquerque, N. Mex. (H)
 Burn, P. R., P. O. Box 1111, Las Cruces, N. Mex. (H-Hvy)
 C & C Contrs., 1907 N. 4th St., N.W., Albuquerque, N. Mex. (H-Hvy)
 Cowart, O. D., 523 Amherst Dr., S. E., Albuquerque, N. Mex. (H)
 Haake, Floyd, 111 Lovato Lane, Santa Fe, N. Mex. (H)
 Lowdermilk Bros., P. O. Box 568, Espanola, N. Mex. (H)
 Martin, G. L., 520 Tulane Dr., S. E., Albuquerque, N. Mex. (H)
 Miller & Smith, P. O. Box 6007, Sta. B, Albuquerque, N. Mex. (H)
 Monaghan, J. H. & N. M. & Assoc. Cos., Rt. 1, Derby, Colo. (H)
 Ryan, J. H., & Son, P. O. Box 513, Albuquerque, N. Mex. (H-Hvy)
 Sharp & Fellows Contr. Co., 533 Central Bldg., Los Angeles 14, Calif. (H)
 Silver, E. M., P. O. Box 1062, Albuquerque, N. Mex. (H)
 Skousen, D. D., & Son, 201 Springer Bldg., Albuquerque, N. Mex. (H)
 Skousen-Hise Contr. Co., 201 Springer Bldg., Albuquerque, N. Mex. (H)
 Spencer & Co., P. O. Box 350, Sena Plaza, Santa Fe, N. Mex. (H)

Thygesen, Henry, & Co., P. O. Box 876, Albuquerque, N. Mex. (H)
 Trotz Constr. Co., P. O. Box 1247, Lovington, N. Mex. (H)
 Wylie Bros., P. O. Box 4025, Albuquerque, N. Mex. (H)

(b) NEW MEXICO BUILDING BRANCH

President—John T. Testman, 2443 Floral Rd., N. W., Albuquerque, N. Mex.
Manager—Alva J. Coats, 224 N. Montclair Ave., P. O. Box 426, Albuquerque, N. Mex.
Telephone: 2-8961

Bradbury, O. G., 1217 1st St., N. W., P. O. 1628, Albuquerque, N. Mex. (B)
 Brunetta, Dan, 606 E. Green, Box 68, Gallup, N. Mex. (B)
 Cooper, W. M., 607 E. Palace Ave., Santa Fe, N. Mex. (B)
 Cottle, L. W., 1308 Ross St., Box 831, Clovis, N. Mex. (B)
 Foster Constr. Co., P. O. Box 1429, Santa Fe, N. Mex. (B)
 Gilchrist Constr. Co., Carver Bldg., P. O. Box 868, Las Cruces, N. Mex. (B)
 Griggs, Raymond, 808 Hull, P. O. Box 781, Clovis, N. Mex. (B)
 Hughes, H. D., 405 N. Virginia Ave., Roswell, N. Mex. (B)
 Lembke-Clough & King Constr. Co., Inc., 1719 5th St., N. W., P. O. Box 455, Albuquerque, N. Mex. (B)
 Los Alamos Constrs., Inc., % Zia Co., Los Alamos, N. Mex. (B-H-Hvy-RR)
 Maxey & Leftwich, P. O. Box 559, Lubbock, Texas (B)
 McKee, Robt. E., Gen. Contr., Inc., P. O. Box 1706, Santa Fe, N. Mex. (B)
 Testman, John T., 2443 Floral Rd., N. W., Albuquerque, N. Mex. (B)
 Valley Bldg. Co., 131 W. Walnut St., Roswell, N. Mex. (B)
 Waggoman-Styron Co., 311 Wellesley Pl., N. E., Albuquerque, N. Mex. (B)
 Whitmore Constr. Co., 3612 Silver Ave., S. E., Albuquerque, N. Mex. (B)

31. NEW YORK**(a) BUFFALO CHAPTER**

President—Park L. Metzger, Metzger Constr. Corp., 429 Carlton St., Buffalo 11, N. Y.
Secretary—Robert R. Logan, 518 Prudential Bldg., Buffalo 2, N. Y.
Telephone: Washington 2340

Bremer, C. C., & Co., 2576 Seneca Ave., Niagara Falls, N. Y. (B)
 Cowper, John W., Co., Inc., The, 405 Sidway Bldg., Buffalo 3, N. Y. (B)
 Darling, Herbert F., 131 California Dr., Williamsville 21, N. Y. (Hvy)
 Elia, Albert, Bldg., Co., Inc., 2749 Lockport Rd., P. O. Box 393, Niagara Falls, N. Y. (B)
 Hendrich Constr., Inc., 2065 Harlem Road at Broadway, Buffalo 12, N. Y. (B)

A.G.C. DIRECTORY

NEW YORK—Continued

International Chimney Corp., 408 Wickwire Bldg., Buffalo 2, N. Y. (B)
 Johnson, Walter S., Bldg. Co., Inc., Hyde Park Blvd., Niagara Falls, N. Y. (B)
 Kimmins, Wm. W., & Sons, 243 Tremont Ave., Kenmore 17, N. Y. (B)
 Laur & Mack Contr. Co., Inc., P. O. Box 563, Niagara Falls, N. Y. (B)
 Metzger Constr. Corp., 429 Carlton St., Buffalo 11, N. Y. (B-Hvy)
 Scrufari Constr. Co., Inc., 3925 Hyde Park Blvd., Niagara Falls, N. Y. (B)
 Shirley-Herman Co., Inc., 1807 Elmwood Ave., Buffalo 7, N. Y. (B)
 Stimm, H. F., Inc., 693 Ellicott Square Bldg., Buffalo, N. Y. (B-Hvy-RR)
 Walker, Geo. W., & Sons, Inc., 770 Elmwood Ave., Buffalo 9, N. Y. (B)
 Wright & Kremers, Inc., Pine Ave. & Main St., Niagara Falls, N. Y. (B)

(c) METROPOLITAN BUILDERS ASSOCIATION OF NEW YORK CITY

President—Charles A. Selby, Vermilya-Brown Co., Inc., 100 E. 42d St., New York City 17

Secretary—W. J. Barney, Jr., W. J. Barney Corp., 101 Park Ave., New York City 17

Telephone: Lexington 2-2720

Barney, W. J., Corp., 101 Park Ave., New York City 17 (B)
 Barr, Gleason & Barr, Inc., 501 5th Ave., New York City (B)
 Brady, John T., & Co., Inc., 606 W. 47th St., New York City 19 (B)
 Carroll, Matthew L., Inc., 101 Park Ave., New York, N. Y. (B)
 Cauldwell-Wingate Co., 101 Park Ave., New York 17, N. Y. (B)
 Caye Constr. Co., Inc., 356 Fulton St., Brooklyn 1, N. Y. (B)
 Corning, Edw., Co., 204 E. 39th St., New York City 16 (B)
 Crawford, Wm., Inc., 7 E. 42d St., New York City 17 (B)
 Crow, Wm. L., Constr. Co., 101 Park Ave., New York City 17 (B)
 Driscoll, Geo. F., Co., 41 E. 42d St., New York City 17 (B)
 Eisele, John H., Co., Inc., 18 E. 41st St., New York City 17 (B)
 Fuller, George A., Company, Fuller Bldg., 597 Madison Ave., New York City 22 (B)
 Grove Shepherd Wilson & Kruege, Inc., 247 Park Ave., New York City 17 (B)
 Hegeman-Harris Co., Inc., 331 Madison Ave., New York City 17 (B)
 Howell, E. W., Co., 101 Park Ave., New York City 17 (B)
 Industrial Engr. Co., 50 Church St., New York City 7 (B)
 Kennedy, John, & Co., 205 E. 42d St., New York City 17 (B)
 Kidde, Walter, Constrs., Inc., 140 Cedar St., New York City 6 (B)
 Lowry, John, Inc., 52 Vanderbilt Ave., New York City 17 (B)

Nicholson Co., Inc., The, 10 Rockefeller Plaza, New York City 20 (B)
 Psaty & Fuhrman, Inc., 369 Lexington Ave., New York City 17 (B)
 Rheinstein Constr. Co., Inc., 21 E. 40th St., New York City 17 (B)
 Ryan Contr. Corp., 341 E. 79th St., New York City 21 (B-Hvy)
 Stewart, James, & Co., Inc., 230 Park Ave., New York City 17 (B)
 Thompson-Starrett Co., Inc., 444 Madison Ave., New York City 22 (B)
 Turner Construction Co., Graybar Bldg., 420 Lexington Ave., New York City 17 (B)
 Vermilya-Brown Co., Inc., 100 E. 42d St., New York City 17 (B)
 White Constr. Co., Inc., 95 Madison Ave., New York City 16 (B)

(d) NEW YORK STATE CHAPTER, INC.

President—Byron R. DeWitt, Potter-DeWitt Corp., Pavilion, N. Y.

Managing Director—William M. Lees, DeWitt Clinton Hotel, Albany 7, N. Y.

Telephone: 3-2486

Addazio Contr. Co., Inc., Oyster Bay, Long Island, N. Y. (H)
 Arborio, John, Inc., W. Cedar St., Poughkeepsie, N. Y. (H)
 Arcole Midwest Corp., 3225 Main St., Evanston, Ill. (H)
 Arute Bros., Inc., 560 S. Main St., New Britain, Conn. (H)
 Arzani, Victor C., Contr. Co., 2507 James St., Syracuse, N. Y. (H)
 Asphalt Roadways Co., 1766 Main St., Buffalo, N. Y. (H)
 Bates & Rogers Construction Corporation, 600 W. Jackson Blvd., Chicago 6, Ill. (H)
 Baughman, H. L., Inc., Rt. 246, E. Henrietta Rd., Rochester 7, N. Y. (H)
 Bellardino, John, Inc., Canal St., Seneca Falls, N. Y. (H)
 Bero Engr. & Constr. Corp., 305 McKinley Bldg., 259 Delaware Ave., Buffalo 2, N. Y. (H)
 Bigan, M. H., Windber, Pa. (H)
 Binghamton Constr. Co., Inc., Marine Midland Bldg., Binghamton, N. Y. (H-Hvy)
 Blades, A. L., & Sons, 42 Broadway, Hornell, N. Y. (H)
 Brunalli Constr. Co., 19 Main St., Southington, Conn. (H)
 Brunner Asphalt & Constr., Inc., 237 Kensington Ave., Buffalo, N. Y. (H)
 Bunce, H. E., Box 270, Waverly, N. Y. (H)
 Cable Guide Rail Constr. Co., 21-23 Gould Ave., Depew, N. Y. (H)
 Cady, Wm. J., & Co., P. O. Box 434, Amsterdam, N. Y. (H)
 Christiana, Vernon, Jr., 605 Pleasant St., Utica, N. Y. (H)
 Circle Constr. Corp., Brockway Pl., White Plains, N. Y. (H)
 City Constr. Co., 640 Jay St., Utica 2, N. Y. (H)
 Cold Spring Constr. Co., 3 Jackson St., Akron, N. Y. (H-Hvy)
 Collins, A. B., Mechanicville, N. Y. (H)
 Collins, D. A., Mechanicville, N. Y. (H)
 Collins, Wm. L., 212 Main St., Hornell, N. Y. (H)
 Coluccio, Thos. F., & Sons, 228 S. Washington St., Rome, N. Y. (H)
 Corbetta Constr. Co., Inc., 220 E. 42d St., New York 17, N. Y. (H)
 Corbisello, N. R., P. O. Box 45, Binghamton, N. Y. (H)
 County Asphalt, Inc., Tarrytown, N. Y. (H)
 Croissant, F. J., Antwerp, N. Y. (H)
 Dale Engr. Co., 404 Court St., Utica, N. Y. (H)
 Dan Bar Contr. Co., Inc., 220 Pulawski St., Syracuse, N. Y. (H)
 Davis Constr. Co., Charlotte Ave., Hicksville, N. Y. (B-H)
 DeFelice, L. G., & Sons, Inc., Nettleton Ave., North Haven, Conn. (H)
 DeLia, Elis G., & Co., Paris Rd., New Hartford, N. Y. (H)
 Depew Paving Co., Inc., 4955 Broadway, Depew, N. Y. (H)
 Di Marco-Ciccone, Inc., 151 E. Post Rd., White Plains, N. Y. (H)
 Dougherty, A. L., Co., 403 Guaranty Bldg., Indianapolis 4, Ind. (H)
 Dutcher Constr. Corp., Queenstown, Md. (H)
 Eagle Contrs. of Utica, Inc., P. O. Box 324, Utica, N. Y. (H)
 Elmhurst Contr. Co., Inc., 53-09 97th Pl., Corona, L. I., N. Y. (H)
 Fitzgerald Bros. Constr. Co., Inc., Proctor Bldg., Troy, N. Y. (H)
 Foley, Robt. E., Constr. Corp., 43 Griswold St., Binghamton, N. Y. (H)
 Frione, D. V., & Co. Inc., Box 125, Sta. "A," New Haven, Conn. (H)
 Gessler Contr. Co., Inc., P. O. Box 12, Eastwood Sta., Syracuse, N. Y. (H)
 Good Roads Engr. & Contr. Co., Inc., Burns Ave., Wantagh, N. Y. (H-Hvy)
 Grandview Constr. Corp., The, 740 S. Fulton Ave., Mt. Vernon, N. Y. (H)
 Green Island Constr. Co., 594 Broadway, Watervliet, N. Y. (H)
 Greene, Wm. H., Westbury, N. Y. (H)
 Groves, S. J., & Sons Co., 19 Rector St., New York, N. Y. (H)
 Gull Contr. Co., Inc., 33-15 Lawrence St., Flushing, L. I., N. Y. (H)
 Harrison & Burrows, Inc., 507 Summit Ave., Jersey City, N. J. (H)
 Harvey, John J., Co., 38 Campion Rd., New Hartford, N. Y. (H)
 Hendrickson Bros., Inc., 63 N. Central Ave., Valley Stream, N. Y. (H)
 Holmes & Murphy, Orchard Park, N. Y. (H)
 Hopkins, Richard, Co., Box 1025, Albany, N. Y. (H-Hvy-RR)
 Horn Constr. Co., Inc., 2174 Hewlett Ave., Merrick, L. I., N. Y. (H)
 Howes & Farrell, Inc., Box 85, Oneida, N. Y. (H)
 Hubbell, O. W., Oneida St., New Hartford, N. Y. (H)
 Hudson River Constr. Co., 75 State St., Albany, N. Y. (H)
 Irwin, John, Contr. Co., Inc., The, P. O. Box 376, Lockport, N. Y. (H)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

NEW YORK—Continued

Johns Bros. Constr. Co., Inc., 38 Hall St., Binghamton, N. Y. (H)
 Johnson, Drake & Piper, Inc., 86 Trinity Pl., New York 6, N. Y. (H)
 Kelleher Corp., 35 Walnut St., Turners Falls, Mass. (H)
 Kero, Peter W., Inc., 615 Newark Ave., Lyndhurst, N. J. (H-Hvy)
 Kranz, M., Engr. & Constr. Co., 447 Ft. Washington Ave., New York 33, N. Y. (H)
 LaBarge Bros. Co., Inc., Moyers Corners, Baldwinsville, N. Y. (H)
 Lane Constr. Corp., The, 37 Colony St., Meriden, Conn. (H)
 Langenfelder, C. J., & Sons, Inc., 8427 Pulaski Hwy., Baltimore 24, Md. (H)
 Law Bros. Contr. Corp., 200 N. Main St., Herkimer, N. Y. (H)
 Lee, L. S., & Son, Oaks Corners, N. Y. (H)
 Lewis & McDowell, Inc., 285 Madison Ave., New York, N. Y. (H)
 Longhi, Louis, & Son, Box 580, Glens Falls, N. Y. (H)
 MacNamee, Daniel F., & Co., Inc., 271 North Ave., New Rochelle, N. Y. (H)
 Madison County Constr. Co., Inc., Madison, N. Y. (H)
 Mayersohn, Louis, 36 State St., Albany, N. Y. (H-Hvy-RR)
 McLain Constr. Corp., 275 Mayville Ave., Buffalo, N. Y. (H)
 Mid-State Bldrs., Inc., 622 South St., Utica, N. Y. (H)
 Mohawk Paving Co., Box 653, Geneva, N. Y. (H)
 Moore, Harold B., Windham, N. Y. (H)
 Mullins, John M., Inc., 2364 Burdett Ave., Troy, N. Y. (H)
 Murray, C. D., Co., Inc., 701 Westcott St., Syracuse, N. Y. (H)
 Parlor City Constr. Co., 30 Odell Ave., Endicott, N. Y. (H)
 Pasquale Constr. Co., 311 Cornell Ave., Endicott, N. Y. (H)
 Peckham Road Corp., 50 Harlem Ave., White Plains, N. Y. (H)
 Peerless Constr. Co., 330 W. 42d St., New York, N. Y. (H)
 Perini, B., & Sons, Inc., Framingham, Mass. (H)
 Potter-DeWitt Corp., Pavilion, N. Y. (H)
 Provo Bros., Inc., Corner Oswego & W. Hia-watha Blvd., Syracuse, N. Y. (H-Hvy)
 Riegel, A. V., Inc., 130 Oakley Ave., White Plains, N. Y. (H)
 Salina Constr. & Supply Co., Inc., 1207 Milton Ave., Syracuse, N. Y. (H)
 Savin Constr. Corp., The, East Hartford, Conn. (H)
 Scullen, S. A., P. O. Box 362, Waterford, N. Y. (H-Hvy-RR)
 Serafini Constr. Co., Inc., R. D. 1, Conklin Rd., Binghamton, N. Y. (H)
 Slattery Contr. Co., Inc., 46-36 54th Rd., Maspeth, L. I., N. Y. (H)
 Strong, "Les", Constr. Co., Box 28, Whitney Point, N. Y. (H)
 Suits, Harry J., Watkins Glen, N. Y. (H)
 Talarico Contr. Corp., Herkimer, N. Y. (H)
 Torpey, Michael J., Inc., 50-07 49th St., Woodside, N. Y. (H)

Triple Cities Constr. Co., Inc., 17 Tompkins St., Binghamton, N. Y. (H)
 Tuckahoe Constr. Co., Inc., 116 Columbus Ave., Tuckahoe, N. Y. (H)
 Tully & Di Napoli, Inc., 127-50 Northern Blvd., P. O. Box 145, Flushing, N. Y. (H)
 Van Kleecck, Wm., New Paltz, N. Y. (H)
 Ward, C. P., Inc., 700 Hollenbeck St., Rochester, N. Y. (H)
 Warren Bros. Roads Co., 33 Cambridge Pkwy., Cambridge 42, Mass. (H)
 Whitmore, C. B., Co., 36 Market St., Lockport, N. Y. (H)
 Wikstrom, A. S., P. O. Box 217, Skaneateles, N. Y. (H)
 Winkelman, D. W., Co. Inc., 205 Harrison St., Syracuse 2, N. Y. (H)
 Zara Contr. Co., Inc., Chestnut St., W. Hicksville, L. I., N. Y. (H)

Local Members

Adirondack Construction Corporation, 73-95 Mohican St., Glens Falls, N. Y. (B-Hvy)
 Senior and Palmer, Inc., 1999 Park Ave., New York 37, N. Y. (Hvy-RR)
 Spencer, White & Prentiss, Inc., 10 E. 40th St., New York, N. Y. (Hvy)
 Stanley, Walter A., Constr. Co., Inc., 23 Railroad Ave., Ossining, N. Y. (B)

**32. NORTH CAROLINA
SOUTH CAROLINA**

(a) CAROLINAS BRANCH

President—M. R. Cowper, Barrus Constr. Co., Box 395, 1st Citizens Bank Bldg., Kinston, N. C.
Managing Director—Robert Patten, P. O. Box 1459, 401-9 Builders Bldg., Charlotte 1, N. C.
Telephone: 3-3731-2-3

Columbia Service Office, Builders Bldg., 1639 Blanding St., P. O. Box 5325, Columbia, S. C.—Mrs. Margaret P. Ballenger, Secretary
Telephone: 2-4331

Greensboro Service Office, Rm. 9, Long Bldg., 115 Church St., Greensboro, N. C.—Miss Ruth Penny, Secretary
Telephone: 4-4311

Greenville Service Office, Mezzanine, Calhoun Towers Bldg., Greenville, S. C.—Mrs. Lois S. Newell, Secretary
Telephone: 5-6064

Raleigh Service Office, Mezzanine Fl., Hotel Sir Walter, Raleigh, N. C.—Miss Elizabeth Hayes, Secretary
Telephone: 4-3479

Abrams Constr. Co., 414 N. Elm St., Greensboro, N. C. (B)
 Alcott Constr. Co., 218 E. Hampton St., Sumter, S. C. (B)
 Alward, H. W., Inc., 161 Mt. Airy Rd., P. O. Box 926, Bernardsville, N. J. (H-Hvy)
 American Constr. Co., RFD #4, Columbia, S. C. (B-H-Hvy)

Ames & Webb, Inc., P. O. Box 4001, Broad Creek Village Sta., Norfolk 2, Va. (H)
 Asheville Paving Co., Box 7068, Asheville, N. C. (H)
 Askins, C. B., 208 Blanding St., Lake City, S. C. (B)
 Atlantic Bitulithic Co., 1400 Roseneath Rd., Richmond 21, Va. (H)
 Atlantic Bldg. Co., Inc., 501 E. Morehead St., Box 3345, Charlotte, N. C. (B)
 Atlantic Bldg. Corp., 1735 Pinehurst Rd., P. O. Box 656, Columbia, S. C. (B)
 Avery Lumber Co., Inc., Sumter, S. C. (B)
 Bailey-Brazell Constr. Co., Inc., 204 Stokes Bldg., Box 386, Greenville, S. C. (B-Hvy)
 Baker, W. E., Constr., Box 909, Sprunt St., West Durham, N. C. (B)
 Baker, W. E., & Son, Whitmire, S. C. (B)
 Ballenger Paving Co., Box 927, Greenville, S. C. (H)
 Ballou Constr. Co., 1603 McMillan Ave., Lumberton, N. C. (B)
 Barge-Thompson Co., 136 Ellis St., N. E., Atlanta 3, Ga. (B)
 Barger Constr. Co., Inc., Box 30, 222 N. Main St., Mooresville, N. C. (B)
 Barnes, H. D., Inc., 233½ N. Greene St., P. O. Box 2408, Greensboro, N. C. (B-Hvy)
 Barnhill & Long, Inc., P. O. Box 725, Tarboro, N. C. (H-Hvy)
 Barrus Constr. Co., Box 395, 1st Citizens Bank Bldg., Kinston, N. C. (H)
 Bartholomew, B. W., Piedmont Bldg., Charlotte 2, N. C. (B)
 Benfield, Harry R., P. O. Box 90, Four Oaks, N. C. (H-Hvy)
 Bennett, C. T., Constr. Co., Box 29, Kings Mountain, N. C. (B)
 Blankenship Bros., 2217 S. Tryon St., P. O. Box 3150, Dilworth Sta., Charlotte, N. C. (H-Hvy)
 Blum, Frank L., & Co., P. O. Box 2253, 860 W. 4½ St., Winston-Salem, N. C. (B)
 Blythe Bros. Co., 2911 Hutchinson Ave., P. O. Box 989, Charlotte 1, N. C. (B-H-Hvy)
 Blythe & Isenhour, Box 614, 131 Brevard Ct., Charlotte, N. C. (B)
 Bollinger Bros., Lumberton, N. C. (B)
 Bowers Constr. Co., 805 W. South St., P. O. Box 1706, Raleigh, N. C. (H)
 Boyd & Goforth, Inc., Pineville Rd., Box 2072, Charlotte, N. C. (B-Hvy)
 Boyle Constr. Co., 30 E. Liberty St., P. O. Box 471, Sumter, S. C. (B-H-Hvy)
 Brabham, V. Lyn, P. O. Box 744, 612 Fairway Dr., Florence, S. C. (B)
 Bradshaw, L. S., & Sons, P. O. Box 1099, 600 N. Long St., Salisbury, N. C. (B-H)
 Brewer, N. E., Co., 8 W. 3d St., Box 2860, Winston-Salem, N. C. (Hvy)
 Bridges, E. C., Box 9, Heath Springs, S. C. (H-Hvy)
 Brinkley, E. P., 936 Cowper Dr., Raleigh, N. C. (H)
 Brinkley, John H., 505 Lexington Ave., Box 468, Thomasville, N. C. (H)
 Brinkley, W. F., & Son Constr. Co., Inc., Box 595, Granite Quarry, N. C. (H)
 Brissey Lumber Co., The, Box 782, 321 Earle St., Anderson, S. C. (B)

A.G.C. DIRECTORY

CAROLINAS—Continued

- Brown Paving Co., P. O. Box 484, Lexington, N. C. (H-Hvy)
- Bryan, J. N., & Son, 1305 Hillsboro St., Raleigh, N. C. (B)
- Bumgarner's Constr. Co., Rt. 1, Conover, N. C. (B)
- Burge, Floyd S., Constr. Co., 406 Dean St., Box 125, Salem Sta., Winston-Salem, N. C. (B)
- Burgess Bros., Box 245, Pinetops, N. C. (H-Hvy)
- Burton, A. B., Co., Inc., Box 817, Wards Rd., Lynchburg, Va. (H)
- Canady Constr. Co., P. O. Box 932, St. Andrews Blvd., Charleston, S. C. (B)
- Carolina Contr. Co., Inc., 1042 Adeline Rd., P. O. Box 5306, Columbia D. S. C. (H-Hvy)
- Carpenter, R. E., & Co., P. O. Box 85, Rutherfordton, N. C. (B-Hvy)
- Carper & Perryclear, Christiansburg, Va. (Hvy)
- Carter, A. G., Jr., Box 468, Whiteville, N. C. (B)
- Carter-Miot Constr. Co., 943 Harden St., P. O. Box 212, Columbia, S. C. (B)
- Cecil, J. K., & Son, Greensboro Rd., Box 169, Lexington, N. C. (H-Hvy)
- Cecil's, Inc., P. O. Box 1895, 290 W. Henry St., Spartanburg, S. C. (B)
- Chapman, L. O., Co., Box 3694, Charlotte, N. C. (B-Hvy)
- Christman & Parsons, Box 195, Spartanburg, S. C. (B)
- Cherokee, Inc., P. O. Box 1296, Sumter Hwy., Columbia, S. C. (H-Hvy)
- Clancy Constr. Co., 307 Edmund St., Box 9381, Raleigh, N. C. (B)
- Clark & Todd, 216 E. Kingston Ave., Charlotte, N. C. (B)
- Claussen-Lawrence Constr. Co., 1394 Gwinnett St., Box 840, Augusta, Ga. (B-H-Hvy)
- Cleckley, J. F., & Co., P. O. Box 656, Orangeburg, S. C. (H)
- Cleckley & McGee, Inc., Box 242, Orangeburg, S. C. (B)
- Clement Bros., Co., Inc., 433 S. Main St., Lenoir, N. C. (B)
- Cline, F. D., Constr. Co., P. O. Box 349, 6-8 E. Davie St., Raleigh, N. C. (H-Hvy)
- Coastal Constr. Co., Box 32, Rose Hill, N. C. (B)
- Coates Constr. Co., P. O. Box 443, Florence, S. C. (H-Hvy)
- Coble Contr. & Engr. Co., P. O. Box 2040, 1705 Battleground Ave., Greensboro, N. C. (B)
- Coble, H. L., Constr. Co., Inc., P. O. Box 2040, 1705 Battleground Ave., Greensboro, N. C. (B)
- Coble, Jesse M., Sedgfield, Box 664, Greensboro, N. C. (H-Hvy)
- Coe, J. L., Constr. Co., 508 Builders Bldg., P. O. Box 1881, Charlotte, N. C. (B)
- Coggins Constr. Co., Inc., 1900 Hillsboro St., Box 1508, Raleigh, N. C. (B)
- Cole & Crumpacker, 1914 Perry St., P. O. Box 38, West Durham, N. C. (B)
- Coltrane-Graham Constr. Co., 245 S. Hamilton St., P. O. Box 1767, High Point, N. C. (B)
- Congaree Constr. Co., 3530 Colony Forest Dr., Columbia, S. C. (B)
- Conner, Frank H., Co., 711 S. Tryon St., P. O. Box 1031, Charlotte, N. C. (B)
- Connor, J. Robt., 513 Rocksping Rd., High Point, N. C. (B)
- Consolidated Constr. Co., Box 1047, 506 E. 22d St., Lumberton, N. C. (B-Hvy)
- Cook, John R., & Co., Inc., Box 597, Augusta, Ga. (B-Hvy)
- Cooper, S. E., Co., P. O. Box 1631, Wilmington, N. C. (H)
- Cox, L. P., Co., 115 W. Main St., P. O. Box 188, Sanford, N. C. (B)
- Craig, John W., P. O. Box 6124, Charlotte, N. C. (B)
- Craig-Roberson Constr. Co., 1610 Westminster Dr., Columbia, S. C. (B)
- Crain & Denbo, Inc., P. O. Box 969, 205-8 Snow Bldg., Durham, N. C. (B)
- Creed, Geo. A., & Son, Leesburg Rd., Columbia, S. C. (B)
- Critcher, J. C., Inc., P. O. Box 39, Asheville, N. C. (H)
- Cromer & Sullivan Constr. Co., 508 Fair St., Box 754, Anderson, S. C. (B)
- Crosby Constr. Co., Inc., P. O. Box 282, Union, S. C. (B-H-Hvy)
- Crosland Constr. Co., 1623 Harden St., Columbia 59, S. C. (B)
- Crouch, M. G., Lumber Co., P. O. Box 816, Hickory, N. C. (B)
- Crowder Constr. Co., 1123 E. 10th St., Box 71, Charlotte, N. C. (H-Hvy)
- Cunningham-Waters Constr. Co., Inc., Pennsylvania Ave., Box 325, Greer, S. C. (B)
- Dale, W. E., Constr. Co., P. O. Box 393, Morganton, N. C. (B)
- Daniel Constr. Co., Inc., P. O. Box 2286, 429 N. Main St., Greenville, S. C. (B)
- Darlington Constr. Co., Inc., W. Broad St., Box 52, Darlington, S. C. (B)
- Delk, W. B., 118½ N. Main St., High Point, N. C. (B)
- Delta Constr. Co., Inc., P. O. Box 888, 506 Rigsbee Ave., Durham, N. C. (B)
- Dickerson, Inc., P. O. Box 448, Monroe, N. C. (B-H-Hvy)
- Dillard, Wm. B., Constr. Co., Inc., P. O. Box 236 Sylva, N. C. (B)
- Dixon Constr. Co., 1001-2 1st Citizens Bank Bldg., P. O. Box 1048, Fayetteville, N. C. (B)
- Dotterer Engr. Co., 12 Exchange St., P. O. Box 495, Charleston, S. C. (B-Hvy)
- Douglass Constr. Co., Rm. 13, Ram Bldg., Aiken, S. C. (H-Hvy)
- Dudley & Williams, Box 3278, Fayetteville, N. C. (B)
- Dunn, W. G., P. O. Box 280, Greenville, N. C. (B)
- Eargle, H. L., Constr. Co., P. O. Box 3156, 907 Hillcrest Ave., Columbia, S. C. (B)
- East Carolina Constr. Co., P. O. Box 326, Dunn, N. C. (B-Hvy)
- Elliott Bldg. Co., Box 400, Hickory, N. C. (B-Hvy)
- Elliott, R. H., 824 Heidt St., Columbia, S. C. (B)
- Elliott, W. T., Box 2186, Spartanburg, S. C. (H)
- Elmore Constr. Co., Box 133, Catawba, N. C. (B)
- Evans Constr. Co., Inc., Box 228, Cameron, S. C. (B)
- Fine, W. M., P. O. Box 26, 132 Victoria Rd., Spartanburg, S. C. (B)
- Fiske-Carter Constr. Co., P. O. Box 1251, 200 Dunbar St., Spartanburg, & P. O. Box 480, Masonic Temple, Greenville, S. C. (B-Hvy)
- Foard, Edison, 301 Price Bldg., Charlotte, N. C. (B)
- Foard, Ernest, 210 Piedmont Bldg., 218 S. Tryon St., Charlotte 2, N. C. (B)
- Foster, W. A., Constr. Co., P. O. Box 1334, 704 S. Church St., Burlington, N. C. (B)
- Fowler-Jones Constr. Co., 510 Reynolds Bldg., Winston-Salem 3, N. C. (B)
- Fulk & Needham, Pilot Mountain, N. C. (B)
- Gallant, C. W., Inc., 206 Latta Arcade, Charlotte, N. C. (H-Hvy)
- Gallimore, L. B., 508 Jackson St., P. O. Box 117, Greensboro, N. C. (B)
- Gardner, Fred C., 123 E. Gordon St., Kinston, N. C. (B)
- General Constr. Co., 1815 Blanding St., P. O. Box 1134, Columbia, S. C. (B)
- General Contr. Co., 509 Peoples Bldg., Charleston, S. C. (B)
- General Engr. Corp., Box 1168, Florence, S. C. (B)
- Gibson, John H., 1112 Arnette Ave., P. O. Box 29, Durham, N. C. (B)
- Gilbert Engr. Co., Inc., Box 828, 638 S. Meeting St., Statesville, N. C. (B-H-Hvy)
- Glenn Constr. Co., 916 Liberty Life Bldg., P. O. Box 598, Charlotte, N. C. (H-Hvy)
- Godwin, O. W., Inc., P. O. Box 590, N. Fayetteville St., Dunn, N. C. (B-Hvy)
- Goode Constr. Corp., 201 Builders Bldg., P. O. Box 666, Charlotte, N. C. (B)
- Graham, W. E., & Sons, Box 268, Cleveland, N. C. (H)
- Grannis & Sloan, Inc., 1110½ Hay St., Drawer 3006, Fayetteville, N. C. (H)
- Green, T. H., P. O. Box 1327, 2731 University Dr., Durham, N. C. (B)
- Gregory, J. M., P. O. Box 332, 701-2 Odd Fellows Bldg., Raleigh, N. C. (H-Hvy)
- Guest, C. M., & Sons, Box 829, Anderson, S. C. & Box J-1, Jefferson Standard Bldg., Greensboro, N. C. (B-Hvy)
- Guion, A. H., & Co., Box 1188, Wilkinson Blvd., Charlotte 1, N. C. (B-Hvy)
- Hand Constr. Co., Box 392, Belmont, N. C. (B)
- Hardaway Contr. Co., Box 1360, Columbus, Ga. (B-H-Hvy)
- Hardison, J. T., & Son, Inc., Box 166, Washington, N. C. (B)
- Harlee-Quattlebaum Constr. Co., 255 S. Edisto Dr., Florence, S. C. (B)
- Harper Bldrs. Supply, Inc., Main St., P. O. Box 461, Williamston, S. C. (B)
- Harper, O. O., Constr. Co., 118 N. McDuffie St., Anderson, S. C. (B)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

CAROLINAS—Continued

- Harrison Construction Company, 1101 Western Ave., Pittsburgh 33, Pa. (B-H-Hvy)
- Hawkins, Neal, P. O. Box 548, E. Main & S. Avon Sts., Gastonia, N. C. (H-Hvy)
- Hayes, R. E., 1130 S. Live Oak Pkwy., Wilmington, N. C. (B)
- Haynes, Chas. C., Jr., Constr. Co., Inc., Hillsboro Rd., P. O. Box 205, West Durham, N. C. (B)
- Haynsworth Constr. Co., 210 W. Cedar St., Florence, S. C. (B)
- Herman-Sipe & Co., Inc., P. O. Box 306, Conover, N. C. (B)
- Herrin, C. A., 926 Urban Ave., Durham, N. C. (B)
- Heslep, John C., Box 934, No. 3, South Carolina Bank Bldg., Columbia F. S. C. (B)
- Hickory Constr. Co., Inc., Box 812, Union Sq., Hickory, N. C. (B)
- Hicks, R. C., 324 Piedmont Bldg., Charlotte 2, N. C. (B)
- Higgins, V. B., Co., P. O. Box 1529, Jefferson Standard Bldg., Greensboro, N. C. (Hvy)
- Hill, J. S., Constr. Co., N. Market St., Box 122, Washington, N. C. (H)
- Holt, Heenan, Box 109, Graham, N. C. (B)
- Homewood, Roy M., P. O. Box 150, Chapel Hill, N. C. (H-Hvy)
- Houser, T. F., 33 London Rd., P. O. Box 5178, Biltmore Sta., Asheville, N. C. (H)
- Howard Constr. Co., Inc., 2881 Immanuel Rd., Box 3094, Greensboro, N. C. (Hvy)
- Hunt Constr. Co., Inc., 3503 Roxboro Rd., P. O. Box 8008, North Durham, N. C. (B)
- Industrial Bldrs., Inc., P. O. Box 52, Anderson, S. C. (B-Hvy)
- Interstate Constr. Co., 211 Atherton St., P. O. Box 3064, Charlotte, N. C. (B)
- Johnson & Geddes, 401 Rowan St., P. O. Box 3217, Fayetteville, N. C. (B-H-Hvy)
- Jones Bros. & Co., Box 1454, 417 Lodge St., Wilson, N. C. (B)
- Jones, J. A., Constr. Co., Inc., 209 W. 4th St., P. O. Box 966, Charlotte 1, N. C. (B-Hvy)
- Kahn, M. B., Constr. Co., 1113 Blossom St., P. O. Box 595, Columbia G. S. C. (B-Hvy)
- Kane, Geo. W., 111 Corcoran Street Bldg., Durham, N. C. (B)
- Kaylor, John R., Rt. 4, Gastonia, N. C. (B)
- Kenyon, Worth D., Constr. Co., Inc., 815 Capital Club Bldg., Raleigh, N. C. (B)
- Kiker & Yount, Inc., Box 3330, 225 W. Morehead St., Reidsville, N. C. (H)
- King-Hunter, Inc., P. O. Drawer V-2, 1421 Westover Terr., Greensboro, N. C. (B)
- Kirkpatrick, R. F., & Sons, Church St., Box 638 Burlington, N. C. (B)
- Kiziah, J. H., Hwy. N-127, Box 2322, Hickory, N. C. (B)
- Knight, Inc., 209½ Morehead St., P. O. Box 839, Reidsville, N. C. (H-Hvy)
- Knox Bros., Inc., Main St., Thomson, Ga. (B-H-Hvy)
- Kraft & Newell, P. O. Box 262, Florence, S. C. (B-H-Hvy)
- Lambeth Constr. Co., Box 1102, 1071 Retreat City, Greensboro, N. C. (H-Hvy)
- LaMotte, Frank W., 815 Woodland Dr., Columbia, S. C. (H-Hvy)
- Lavender Bros., Box 2, Earl, N. C. (H)
- Laxton Constr. Co., Inc., 1117 E. 10th St., P. O. Box 9086, Charlotte, N. C. (B)
- Lee Constr. Co., Power Bldg., 311 W. Worthington, Box 3608, Charlotte, N. C. (B-Hvy)
- Lee, Robt., Inc., Box 417, Manning, S. C. (H-Hvy)
- Lewis & Bowman, Inc., 12 Edwards Bldg., P. O. Box 743, Goldsboro, N. C. (Hvy)
- Little Constr. Co., Inc., 703 Builders Bldg., Box 1053, Charlotte, N. C. (B)
- Loving, T. A., & Co., Bank of Wayne Bldg., Box 989, Goldsboro, N. C. (B-H-Hvy)
- Lowder, Ray D., Inc., Albemarle, N. C. (H)
- Lyles & Lang Constr. Co., Leesburg Rd., Columbia, S. C. (B)
- MacDougald Constr. Co., Northside Dr., N.W., P. O. Box 1655, Atlanta 1, Ga. (H-Hvy-RR)
- Macon Constr. Co., P. O. Box 506, Franklin, N. C. (H)
- Mangum, C. C., 3016 Hillsboro St., Box 5936, State College Sta., Raleigh, N. C. (H-Hvy)
- Marsh Realty Co., 201 Wilder Bldg., Charlotte, N. C. (B)
- Martin, Ben H., Box 166, Easley, S. C. (H)
- Massey, W. R., Co., Box 381, Newton, N. C. (B)
- McDevitt & Street Company, Box 1847, 505 Builders Bldg., Charlotte 1, N. C. (B-Hvy)
- McDowall & Wood, 1308 W. Main St., Salem, Va. (H)
- McKoy-Helgerson Co., Box 57, 320 S. Hudson St., Greenville, S. C. (B)
- McMeekin Constr. Co., P. O. Box 352, Cheraw, S. C. (H-Hvy)
- McMullen Constr. Co., 200 Haywood Rd., Asheville, N. C. (B)
- Merchant Constr. Co., 284 Biltmore Ave., Box 2479, Asheville, N. C. (B)
- Michael & Embree, E. Markham Ave., P. O. Box 1690, Durham, N. C. (H)
- Midstate Contrs., Inc., 1028 1st Ave., S. W., P. O. Box 2401, Hickory, N. C. (H-Hvy)
- Mitchell, H. F., Constr. Co., P. O. Box 528, Main St., Burlington, N. C. (B)
- Mobley, Clarence, Contr. Co., 630 11th St., Augusta, Ga. (B-Hvy)
- Modern Bldrs., Inc., 158 N. Main St., Rocky Mount, N. C. (B)
- Moore Constr. Co., P. O. Box 5, Myrtle Beach, S. C. (B)
- Moore, G. E., Co., Inc., Box 1069, Greenwood, S. C. (B-H-Hvy)
- Morgan, E. R., Box 1101, 251½ Main St., Gastonia, N. C. (B)
- Morris Constr. Co., P. O. Box 364, Greenville News Bldg., Greenville, S. C. (B)
- Morrison, Clarence M., Rt. 2, Shelby, N. C. (B)
- Muirhead, Wm., Construction Company, Inc., P. O. Box 2012, E. Trinity Ave., Durham, N. C. (B-H-Hvy)
- Mullis, Carl W., Lumber Co., Box 470, Lancaster, S. C. (B)
- Neal, C. P., Constr. Co., P. O. Box 278, Park St., Forest City, N. C. (B)
- North State Constr. Co., Inc., 830 Carr St., P. O. Box 1136, Rocky Mount, N. C. (B)
- Owen Constr. Co., Inc., 1006 Northwood St., Greensboro, N. C. (B)
- Parham-Darr Constr. Co., P. O. Box 1226, High Point, N. C. (B)
- Patterson, Dean, Constr. Co., 1209 S. Main St., Burlington, N. C. (H-Hvy)
- Peden Constr. Co., Inc., 52 Mayberry St., Greenville, S. C. (H-Hvy)
- Pennell & Haigler, Inc., Wilkesboro Rd., Lenoir, N. C. (B)
- Phifer, Jesse P., Constr. Co., Box 206, E. Rockingham Rd., Rockingham, N. C. (B)
- Phillips Constr. Co., Arch & Catawba Sts., Lancaster, S. C. (B)
- Pickler, M. C., Constr. Co., Inc., Aberdeen, N. C. (B)
- Piedmont Constr. Co., Inc., P. O. Box 1538, 607 Coal St., Winston-Salem 1, N. C. (B-H-Hvy)
- Pinnix, R. H., P. O. Box 97, Commercial Bldg., Gastonia, N. C. (B)
- Player Realty & Constr. Co., P. O. Box 707, 110 Drake St., Fayetteville, N. C. (B)
- Poe, T. W., & Sons, Inc., P. O. Box 245, 406 Snow Bldg., Durham, N. C. (B)
- Pope, S. A., 356 Pickens St., Rock Hill, S. C. (B)
- Potter-Shackelford Constr. Co., Box 3218, Sta. "A," 4 Washington Pl., Greenville, S. C. (B)
- Powell, Jas. F., Jr., 1310 Williamson Dr., Raleigh, N. C. (H-Hvy)
- Propst, Ben B., P. O. Box 526, Concord, N. C. (H)
- Propst Constr. Co., Inc., P. O. Box 752, Blume St., Concord, N. C. (H)
- Pyramid Constr. Co., 3608 Oleander Dr., Box 1655, Wilmington, N. C. (B-H-Hvy)
- Ramsey, A. A., & Son, P. O. Box 1249, Shelby, N. C. (B)
- Ramsey, H. F., Co., Inc., Box 5146, Biltmore Sta., Asheville, N. C. (H)
- Randall, W. R., & Son, 1123 E. Main St., P. O. Box 375, Rock Hill, S. C. (B)
- Rea Constr. Co., P. O. Box 2015, Charlotte, N. C. (H-Hvy)
- Reagan, Wm. M., & Sons, Inc., R.F.D. 4, Box 215, Columbia, S. C. (H-Hvy)
- Reed & Abbe, Inc., Box 5101, Biltmore Sta., Brook St., Asheville, N. C. (Hvy)
- Reeves, C. E., & Sons, Rt. 4, Fayetteville, N. C. (B)
- Reinecke, E. W., Co., 820 Ramsey St., Fayetteville, N. C. (B)
- Rice, Jas. F., 1619 Green St., Columbia, S. C. (B)
- Robinson Bros. Contrs., Inc., 841 Merrimon Ave., Asheville, N. C. (B)
- Rogers, J. P., 1/a Rogers Constr. Co., Holman Bldg., 217A Market St., Smithfield, N. C. (B)
- Rogers, Luther T., P. O. Box 1585, 17th & Meares St., Wilmington, N. C. (B)
- Rose, D. J., & Son, Drawer 351, 125 Rose St., Rocky Mount, N. C. (B)
- Rouse, R. N., & Co., 1019 N. William St., P. O. Box 702, Goldsboro, N. C. (B)

A.G.C. DIRECTORY

CAROLINAS—Continued

Ruscon Constr. Co., 149 E. Bay St., P. O. Box 275, Charleston, S. C. (B-Hvy)
 Sanford Constr. Co., Inc., Sycamore St., Box 427, Sanford, N. C. (H-Hvy)
 Scott, W. H., Inc., P. O. Drawer 418, Franklin, Va. (H)
 Seastrunk, F. J., Elec. Co., Inc., P. O. Box 329, 1731 Harden St., Columbia, S. C. (Hvy)
 Seth Homes, Inc., Box 468, Lincolnton, N. C. (B)
 Seymour, John W., 1427 Curfman St., Raleigh, N. C. (B)
 Shackelford, O. L., Inc., 104 E. Blount St., P. O. Box 886, Kinston, N. C. (B)
 Shearer, A. C., Co., Box 128, Chapel Hill, N. C. (H)
 Shipp, C. H., Constr. Co., P. O. Box 667, 1104 Watts St., Durham, N. C. (B)
 Shockley, C. G., Constr. Co., 2020 Blanding St., P. O. Box 5186, Columbia 59, S. C. (B)
 Showalter, F. L., Inc., Box 623, 1601 Allied Arts Bldg., Lynchburg, Va. (B-Hvy)
 Simon, A. L., Constr. Co., P. O. Box 87, 309 Marsteller St., Wilmington, N. C. (B)
 Sistare, A. T., Constr. Co., Inc., Box 805, Spartanburg, S. C. (H)
 Skinner & Ruddock, Inc., P. O. Box 750, King St. Extension, Charleston G, S. C. (B-H-Hvy)
 Sloan Constr. Co., Inc., P. O. Box 747, Peoples National Bank Bldg., Greenville, S. C. (H)
 Smith, C. T., & Son, Box 89, Lenoir, N. C. (B)
 Smith, Geo. T., Jr., 2717 Peachtree St., Raleigh, N. C. (H-Hvy)
 Smith & Jones, Gen. Contrs., 936 W. Peachtree St., N. W., Atlanta, Ga. (B)
 Smyth, Norman A., Co., 404½ S. Tryon St., Box 473, Charlotte 1, N. C. (B)
 Sossamon, F. W., Jr., P. O. Box 213, Gaffney, S. C. (B)
 Southeastern Constr. Co., 301 W. 2d St., Box 1517, Charlotte 1, N. C. (B)
 Southern Bldrs., Inc., Box 1016, Fayetteville, N. C. (B-H)
 Southern Constr. Co. of Charlotte, Inc., 1017 E. 4th St., P. O. Box 1392, Charlotte, N. C. (B)
 Southern Roadbuilders, Inc., 540 Reynolds St., Augusta, Ga. (H)
 Southern States Constr. Co., P. O. Box 596, 4815 Forest Dr., Columbia, S. C. (B)
 Spangler, C. D., Constr. Co., 1028 South Blvd., P. O. Box 3007, Charlotte, N. C. (B)
 Sparling Constr. Co., 1326 Carolina St., P. O. Box 1980, Greensboro, N. C. (B)
 Spong Constr. Co., P. O. Box 5436, 608½ Harden St., Columbia, S. C. (B)
 Spotts & Co., R.F.D. #1, Box 124, Newberry, S. C. (H-Hvy)
 Spruce, Geo. T., P. O. Box 3238, Fayetteville, N. C. (Hvy)
 Stacy Bros. Co., 145 W. Main St., Box 247, Johnson City, Tenn. (H)

Stegall Constr. Co., Inc., Box 416, Marshville, N. C. (H-Hvy)
 Stewart, H. R., & Co., 5 Westchester Dr., Asheville, N. C. (H-Hvy)
 Stewart, R. K., & Son, Box 1936, High Point, N. C. (B)
 Stiefel, W. Herbert, P. O. Box 604, Richland Ave. at Williamsburg St., Aiken, S. C. (B)
 Stockton, J. C., & Son, 1316 Wilson St., P. O. Box 2014, Hill Sta., Augusta, Ga. (B)
 Strong & Harmon, 2714 Cooleemee Dr., Raleigh, N. C. (B)
 Stroup, D. Glenn, 111 Oakdale St., Gastonia, N. C. (B)
 Suber & Co., Inc., N. Main St., P. O. Box 338, Whitmire, S. C. (H-Hvy)
 Sumter Bldrs., Inc., P. O. Box 590, Sumter, S. C. (B)
 Superior Constr. Co., 1053 Oakmont Ave., Box 2593, Greensboro, N. C. (B)
 Swain Constr. Co., Inc., P. O. Box 90, 108 S. Academy, Kingstree, S. C. (B-H)
 Talbott, A. W., Buffalo Springs, Va. (H-Hvy)
 Tate, C. G., Constr. Co., Knapolis Hwy. U. S. 29, Concord, N. C. (H)
 Taylor Constr. Co., Box 5220, Biltmore Sta., Asheville, N. C. (H)
 Taylor Constr. Co., Inc., Elizabethton, Tenn. (B-H-Hvy)
 Taylor, E. F., Co., Inc., Box 653, Goldsboro, N. C. (B)
 Teer, Nello L., Co., Trust Bldg. P. O. Box 1131, Durham, N. C. (H-Hvy)
 Thomas, J. B., 1200 South Blvd., Charlotte, N. C. (B)
 Thomason, C. Y., Co., Box 232, Greenwood, S. C. (B-H-Hvy)
 Thompson, A. R., Contr., Inc., Charlotte Rd., P. O. Box 248, Rutherfordton, N. C. (H)
 Thompson-Arthur Paving Co., 300 Benbow Rd., P. O. Box 1197, Greensboro, N. C. (H-Hvy)
 Thompson, F. N., Inc., P. O. Box 1474, Pineville Rd., Charlotte 1, N. C. (B-H-Hvy)
 Thompson, J. M., Co., 655 W. Lenoir St., P. O. Box 2754, Raleigh, N. C. (B)
 Thompson, O. G., & Sons, 1500 N. Church St., P. O. Box 588, Burlington, N. C. (B)
 Towles, E. B., Constr. Co., P. O. Box 1617, Market Street Rd., Wilmington, N. C. (H-Hvy)
 Triangle Constr. Co., P. O. Box 372, Greenville, S. C. (B)
 Triplett, F. A., Inc., Box 297, 133 Walnut St., Chester, S. C. (H)
 Troutman, E. N., 1108 E. Holly St., Goldsboro, N. C. (B)
 Tuck, A. M., 507 Hodges Bldg., P. O. Box 203, Greenwood, S. C. (H)
 Vick, Wm. C., 3114 Hillsboro St., Raleigh, N. C. (B)
 Vinroot, G. E., Constr. Co., Rt. 2, Meadow Lane, P. O. Box 6144, Charlotte, N. C. (B)

Waddell, J. R., & Sons, Rt. 2, Box 350, Charlotte, N. C. (B)
 Wade Constr. Co., Barnesville, N. C. (B-H)
 Wagoner Constr. Co., 1311 Blair St., P. O. Box 1127, Salisbury, N. C. (B)
 Wannamaker & Wells, Inc., Box 542, 900 Chestnut, N. E., Orangeburg, S. C. (B-H-Hvy)
 Wayne Engr. & Constr. Co., Inc., P. O. Box 306, Mt. Olive, N. C. (H)
 Weaver, W. H., Constr. Co., Inc., 214 W. Gaston St., Greensboro, N. C. (B)
 West Bldg. Co., Inc., 1006 Reynolds Bldg., Winston-Salem, N. C. (B)
 West, P. S., Constr. Co., Inc., 430 S. Center St., Drawer 751, Statesville, N. C. (B-Hvy)
 White, A. P., & Assoc., Box 264, 328½ S. Church St., Charlotte, N. C. (Hvy)
 Whitton Bros., 301 W. 2d St., P. O. Box 1517, Charlotte 1, N. C. (B)
 Wilburn & Son, 21 Pine Tree Circle, Asheville, N. C. (B)
 Willard, A. Y., Box 155, St. Andrews Br., Avondale Ave., Charleston, S. C. (B-Hvy)
 Wilson Constr. Co., Inc., Box 603, 120 N. Church St., Salisbury, N. C. (H-Hvy)
 Wilson, G. L., Bldg. Co., 149 E. Water St., Box 1147, Statesville, N. C. (B)
 Wilson-Ledford Constr. Co., Inc., P. O. Box 752, Wilkinson Blvd., Gastonia, N. C. (B)
 Winkelman, D. W., Carolina Co., Box 2566, Greensboro, N. C. (H-Hvy)
 Woods, C. C., Constr. Co., 217 W. Geer St., Box 551, Durham, N. C. (B)
 Wrenn-Wilson Constr. Co., P. O. Box 393, 209 Trust Bldg., Durham, N. C. (B-Hvy)
 Wright Constr. Co., 600 Lawyers Bldg., Raleigh, N. C. (B)
 York Bldg. Co., Cameron Village, Raleigh, N. C. (B)
 Young Constr. Co., 966 W. Main St., Rock Hill, S. C. & Box 2488, Charlotte, N. C. (B-H-Hvy)
 Young, J. R., Constr. Co., P. O. Box 747, 330 Worth St., Fayetteville, N. C. (B-Hvy)
 Younts, E. E., Inc., P. O. Box 1253, High Point, N. C. (B)

33. NORTH DAKOTA

(a) ASSOCIATED GENERAL CONTRACTORS OF NORTH DAKOTA

President—Francis J. Butler, Butler Constr. Co., Grand Forks, N. Dak.
 Manager—Charles L. Hoffman, 110 3d St., Bismarck, N. Dak.
 Telephone: 3806

Alexander Constr. Co., 4641 Hiawatha Ave., Minneapolis 6, Minn. (H)
 Beebe, John C., 103 Goebel Bldg., Grand Forks, N. Dak. (B)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

NORTH DAKOTA—Continued

Birch, S., & Sons Constr. Co., Fargo, N. Dak. (H)
 Bradbury, P. A., Constr. Co., Wylie Park Rd., Box 636, Aberdeen, S. Dak. (B-H)
 Butler Constr. Co., Grand Forks, N. Dak. (H)
 Campbell, Archie, Warwick, N. Dak. (H)
 Collins, Wm., & Sons, Inc., 514 Black Bldg., Fargo, N. Dak. (H)
 Delzer Constr. Co., 201 Front St., Bismarck, N. Dak. (B-H-Hvy)
 Dieseth, John, Co., Fergus Falls, Minn. (H)
 Everetts & Kelso, Box 717, Jamestown, N. Dak. (H)
 Garrison Spillway Constrs., Riverdale, N. Dak. (H-Hvy)
 Groves, S. J., & Sons Co., 500 Wesley Temple Bldg., Minneapolis 4, Minn. (H-Hvy)
 Haggart Constr. Co., The, Box 1310, Fargo, N. Dak. (H)
 Haggart, Geo. E., Constr., Co., Fargo, N. Dak. (Hvy)
 Haggart, Geo. E., Inc., Box 1962, Fargo, N. Dak. (Hvy)
 Jardine Bridge Co., Inc., 1910 1st Ave., No., Fargo, N. Dak. (H)
 Johnson-Gillanders Co., 424 N. 3d St., Grand Forks, N. Dak. (B)
 Johnson & Lunn Contrs., Inc., 1819 Michigan Ave., Bismarck, N. Dak. (B)
 Jordan Constr. Co., Hensel, N. Dak. (B-H-Hvy)
 Kemper, Paul R., Kemper Block, Minot, N. Dak. (H-Hvy)
 Knudsen, Carl M., & Co., 312 8th St., N. W., Minot, N. Dak. (B)
 Kovash, Inc., Dickinson, N. Dak. (B-Hvy)
 Krieg, J. E., & Sons, 2014 Front St., Fargo, N. Dak. (B)
 Lalonde, Albert, Co., Sidney, Mont. (H)
 Larson, John W., 200½ 3d St., Bismarck, N. Dak. (B)
 LaVoy & Scheffler, 1438 Broadway, Fargo, N. Dak. (H)
 Lindberg Constr. Co., Jamestown, N. Dak. (H-Hvy)
 Lytle, C. F., Co. & Green Constr. Co., Box 1116, Garrison, N. Dak. (H-Hvy)
 Mackley & Ralston, Highway 2 East, Minot, N. Dak. (B)
 Mattson, Isak, & Son, 120 1st Ave., S. E., Minot, N. Dak. (B)
 Meinecke-Johnson Co., 5 N. 14th St., P. O. Box 1446, Fargo, N. Dak. (B)
 Meisner-Anderson Co., 713 Avenue A, Bismarck, N. Dak. (B)
 Miller Bros. Constr. Co., Tioga, N. Dak. (B)
 Moline, E. A., 118½ 1st Ave., So., Jamestown, N. Dak. (B)
 Murphy-Smestad Constr. Co., 1337 Broadway, Fargo, N. Dak. (H)
 Nelson, Harvey W., Grafton, N. Dak. (B)
 Noel, W. H., Co., Box 1390, Jamestown, N. Dak. (H)
 Northern Constr. Co., 509 S. 3d St., Grand Forks, N. Dak. (H-Hvy)
 Northern Improvement Co., 633 1st Ave., No., Box 489, Fargo, N. Dak. (H-Hvy)
 Northwestern Engr. Co., Box 1392, Rapid City, S. Dak. (H-Hvy)

Orheim, I. E., Constr. Co., Minot, N. Dak. (B)
 Powers, T. F., Constr. Co., 217 4th Ave., No., Fargo, N. Dak. (B)
 Richardson, Lou, Box 335, Miles City, Mont. (H)
 Roel Constr. Co., 20 N. 14½ St., Fargo, N. Dak. (B)
 Rue Constr. Co., 217 3d St., Bismarck, N. Dak. (H-Hvy)
 Rue Contr. Co., Box 349, Fargo, N. Dak. (B-Hvy)
 Schultz & Lindsay Constr. Co., 621 1st Ave., No., Fargo, N. Dak. (H)
 Shaw, J. A., Constr. Co., Fargo, N. Dak. (Hvy)
 Shirley Constr. Co., Minot, N. Dak. (B)
 Simek, Frank, Bottineau, N. Dak. (B)
 Smith, Inc., 1620 1st Ave., No., Fargo, N. Dak. (B)
 Summit Constr. Co., P. O. Box 1609, Rapid City, S. Dak. (H)
 Swingen Constr. Co., 901 N. 6th St., Grand Forks, N. Dak. (H)
 Tennesos Constr. Co., 1205 S. 9th St., Box 1363, Fargo, N. Dak. (H)
 Tri-State Excavating Co., P. O. Box 1566, Fargo, N. Dak. (Hvy)
 Valley Engr. & Constr. Co., 1102 S. Washington, Grand Forks, N. Dak. (H-Hvy)

34. OHIO**(a) AKRON CHAPTER**

President—C. E. Carter, 671 N. Howard St., Akron 10, Ohio
Secretary—Wayne L. Myers, Builders Exchange Bldg., Akron 10, Ohio
Telephone: Hemlock 3636

Carmichael Constr. Co., The, P. O. Box 590, Akron 9, Ohio (B-Hvy)
 Carter, C. E., 671 N. Howard St., Akron 10, Ohio (B)
 Cleaver, David, Co., 390 Morgan Ave., Akron 11, Ohio (B)
 Clemmer Constr. Co., Inc., 134 E. Thornton St., Akron 11, Ohio (B)
 D'Alessio Constr. Co., 595 E. Tallmadge Ave., Akron 10, Ohio (B-H-Hvy)
 DeLuca Constr. Co., 1055 Grant St., Akron, Ohio (H-Hvy)
 Helbig, A. S., Co., The, 39 N. Valley St., Akron, Ohio (Hvy)
 Jacobson, John, Co., The, 1046 N. Main St., Akron 10, Ohio (B-Hvy)
 Jesse, Walter A., 450 Hickory St., Akron, Ohio (B)
 Lindstrom & Swanson, Inc., 776 N. Main St., Akron, Ohio (B)
 Miletto Constr. Co., 2473 State Rd., Cuyahoga Falls, Ohio (B)
 Perry, B. F., 760 Home Ave., Akron, Ohio (B-Hvy)
 Rottmayer Constr. Co., 319 Power St., Akron 11, Ohio (B)
 Summit Constr. & Fixture Co., 561 Washington St., Akron, Ohio (B)
 Weinstein Constr. Co., 573 E. Tallmadge Ave., Akron, Ohio (B)

(b) CINCINNATI CHAPTER

President—Chas. M. Messer, Frank Messer & Sons, Inc., 4612 Paddock Rd., Cincinnati 29, Ohio
Vice President—Harry D. Foley, Foley Constr. Co., 5050 Orchard St., Cincinnati 12, Ohio
Manager—J. A. Higgins, 903 Times Star Tower, Cincinnati 2, Ohio
Telephone: Parkway 3560

Ajax Constr. Co., The, 6319 Wiehe Rd., Cincinnati 13, Ohio (B)
 Armo Drainage & Metal Prods., Inc., Central Div., Box 170, Middletown, Ohio (H-Hvy-RR)
 Bond & Sheehan, 11 Clark Rd., Reading, Cincinnati 15, Ohio (H-Hvy)
 Boyajohn, Haig M., & Assos., Inc., 990 W. 3d Ave., Columbus 8, Ohio (B)
 Brewer Co., 7455 Dawson Rd., Madeira, Ohio (H-Hvy)
 Brose Constr. Co., 5431 Hetzel Ave., Cincinnati 27, Ohio (B)
 Crawley, David, Box 91, College Hill, Cincinnati 24, Ohio (H-Hvy)
 Crumley, Jones & Crumley Co., The, 7234 Blue Ash Ave., Deer Park 13, Ohio (H-Hvy)
 Danis, B. G., Co., 1518 E. 1st St., Dayton 3, Ohio (B)
 Ferro Concrete Constr. Co., 203 W. 3d St., Cincinnati 2, Ohio (B-Hvy)
 Fisher-DeVore Constr. Co., 3629 Idlewild Ave., Cincinnati 7, Ohio (B)
 Foley Constr. Co., 5050 Orchard St., Cincinnati 12, Ohio (H-Hvy-RR)
 Harper, W. L., Co., 2910 E. Highland Ave., Cincinnati 12, Ohio (H-Hvy)
 Harvard Constr. Corp., 463 E. McMillan St., Cincinnati 6, Ohio (B)
 Jurgensen, John R., Round Bottom & N. & W. R. R., Newtown, Ohio (H-Hvy)
 Maescher, Chas. V., & Co., 2106 Florence Ave., Cincinnati 6, Ohio (B-Hvy)
 Marcus, M., Bldg. Co., 2109 Reading Rd., Cincinnati 2, Ohio (B)
 McCarthy, Ed. A., & Son, Box 55, Sta. E., Cincinnati 19, Ohio (B-RR)
 Messer, Frank, & Sons, Inc., 4612 Paddock Rd., Cincinnati 29, Ohio (B-Hvy)
 Meyer-Hecht Co., 2824 Stanton Ave., Cincinnati 6, Ohio (B)
 Miller, H. W., Constr. Co., Inc., 1511 Neave St., Covington, Ky. (B-Hvy)
 Murdock Constr. Co., The, 1686 West St., Norwood 12, Ohio (H-Hvy)
 O'Connell & Sweeney, Inc., 1640 Lionel, Box 56, Sta. F, Cincinnati 4, Ohio (H-Hvy)
 Penker Constr. Co., The, 1030 Summer St., Cincinnati 4, Ohio (B-Hvy)
 Peters, Paul C., Co., Rm. 27, Kenton Bldg., 2318 Monroe St., Toledo 2, Ohio (B)
 Richardson Constr. Co., Inc., 5236 Kennedy Ave., Cincinnati 13, Ohio (H)
 Richter Transfer Co., 1249 W. 7th St., Cincinnati 3, Ohio (H-Hvy)
 Ruebel, S. A., & Co., 800 Ross Ave., Cincinnati 17, Ohio (H-Hvy-RR)
 Scully Bros., 405 Atlas Bank Bldg., Cincinnati 2, Ohio (H)

OHIO—Continued

Shook, Chas. H., 582 W. 2d St., Dayton 1, Ohio (B)
 Skilken, Jos., & Co., 44 E. Broad St., Columbus 15, Ohio (B-Hvy)
 Swan Constr., Inc., P. O. Box 1727, Cincinnati 1, Ohio (B-Hvy)
 Vest & Bartell Constr. Co., 4438 Appleton St., Cincinnati 9, Ohio (H-Hvy)
 Vulcan Copper & Supply Co., The, Constr. Div., 120 Sycamore St., Cincinnati 2, Ohio (B-Hvy)
 Wagner, Inc., 3855 Alta Ave., Silverton, Cincinnati 36, Ohio (B-H-Hvy)
 Warm, J. & E., Co., The, 2335 Florence Ave., Cincinnati 6, Ohio (B-Hvy)
 Zull, C. Louis, Rm. 200, 1015 Vine St., Cincinnati 2, Ohio (B)

(c) CLEVELAND CHAPTER

President—Frank K. Harmon, The Brown Constr. Co., 2520 Payne Ave., Cleveland 14, Ohio
Executive Secretary—Chas. W. Jauch, 1737 Euclid Ave., Cleveland 15, Ohio
Telephone: Main 1-4000

Alger-Rau, Inc., 17024 Miles Ave., Cleveland 28, Ohio (B)
 Blaha, J. N., & Son, 4581 Pearl Rd., Cleveland 9, Ohio (B)
 Bolton-Pratt Co., The, 1276 W. 3d St., Cleveland 13, Ohio (B)
 Brown Constr. Co., The, 2520 Payne Ave., Cleveland 14, Ohio (B)
 Burton, Chas. A., Inc., 12600 Triskett Rd., Cleveland 11, Ohio (B)
 Carbone, R. P., Constr. Co., 1504 Scovill Ave., Cleveland 15, Ohio (B)
 Christian, J. E., Co., The, 5703 Curtiss Ave., Cleveland 3, Ohio (B)
 Cleveland Constr. Co., The, 3866 Carnegie Ave., Cleveland 15, Ohio (B)
 Demshar Bldrs. Co., Inc., 882 E. 140th St., Cleveland 10, Ohio (B)
 Dick, W. H., Constr. Co., 17206 Miles Ave., Cleveland 28, Ohio (B)
 Duffy Constr. Corp., 540 Terminal Tower, Cleveland 13, Ohio (B)
 Dunbar Co., The, 8201 Cedar Ave., Cleveland 3, Ohio (B)
 Dunlop & Johnston, Inc., 1950 Lee Rd., Cleveland Heights 18, Ohio (B)
 Emerson, Sam W., Co., The, 1836 Euclid Ave., Cleveland 15, Ohio (B)
 Esch Constr. Co., 812 Caxton Bldg., Cleveland 15, Ohio (B)
 Ferguson, H. K., Co., The, 1783 E. 11th St., Cleveland 14, Ohio (B)
 Freeman & Jones, Inc., 6007 Euclid Ave., Cleveland 3, Ohio (Hvy-RR)
 Gaspard Constr. Co., The, 2193 Concord Dr., Cleveland 7, Ohio (B)
 Gillmore-Olson Co., The, 1873 E. 55th St., Cleveland 3, Ohio (B)
 Hamann Constr. Co., The, 25020 Lakeland Blvd., Cleveland 23, Ohio (B)
 Hansen, R., Co., The, 2646 N. Moreland Blvd., Cleveland 20, Ohio (B)

Harbor Constr. Co., Inc., P. O. Box 551, Willoughby, Ohio (B)
 Henderson, David, & Son, 7808 Kinsman Rd., Cleveland 4, Ohio (B)
 Higley, Albert M., Co., The, 2036 E. 22d St., Cleveland 15, Ohio (B)
 Hoelzl Constr. Co., Inc., The, 13515 Brookpark Rd., Cleveland 11, Ohio (B)
 Humel Constr., Inc., 17706 Miles Ave., Cleveland 28, Ohio (B)
 Hunkin-Conkey Constr. Co., The, 1740 E. 12th St., Cleveland 14, Ohio (B-Hvy)
 Hunting, J. L., Co., The, Chester-9th Bldg., Cleveland 14, Ohio (B)
 Industrial Constr., Inc., 10011 Meech Ave., Cleveland 5, Ohio (B)
 Kares Constr. Co., Inc., 17403 Harvard Ave., Cleveland 28, Ohio (B)
 Klefman, H. E., Co., The, 3436 Lorain Ave., Cleveland 13, Ohio (B)
 Krill, Leonard H., Co., The, 2169 E. 33d St., Cleveland 15, Ohio (B)
 Mainline Constr. Co., 8600 Brookpark Rd., Cleveland 29, Ohio (B)
 Marion Contr. Corp., 194 S. State St., Marion, Ohio (B)
 Masters & Mullen Constr. Co., The, 437 Chester-12th Bldg., Cleveland 14, Ohio (B)
 Minton Constr. Co., 4500 Euclid Ave., Cleveland 3, Ohio (B-Hvy)
 Mitzel Co., The, 1836 Euclid Ave., Cleveland, 15, Ohio (B)
 National Concrete Fireproofing Co., The, 556 Terminal Tower Bldg., Cleveland 13, Ohio (B)
 Paugh & Brown, Inc., 6007 Euclid Ave., Cleveland 3, Ohio (B)
 Peck & Udell Constr. Co., The, 4500 Euclid Ave., Cleveland 3, Ohio (B)
 Peters, John M., Constr. Co., 1075 Brookpark Rd., Cleveland 9, Ohio (B)
 Rankin, D. W., Inc., 1836 Euclid Ave., Cleveland 15, Ohio (B)
 Regan, C. T., Constr. Co., The, 1900 Euclid Ave., Cleveland 15, Ohio (B)
 Roediger Constr., Inc., 1729 Superior Ave., Cleveland 14, Ohio (B)
 Rutherford, Geo. A., Co., The, 2725 Prospect Ave., Cleveland 15, Ohio (B)
 Schirmer-Peterson Co., The, 6830 Beaver Ave., Cleveland 4, Ohio (B)
 Schirmer-Schneider Co., The, 2719 Detroit Ave., Cleveland 13, Ohio (B)
 Schloss, Wm. L., Asphalt Paving Co., 3494 Lee Rd., Cleveland 20, Ohio (H)
 Schmidt, Leo W., Co., 10000 Granger Rd., Cleveland 25, Ohio (B)
 Slatmyer, Henry G., & Son Constr. Co., The, 203 Lakeside Ave., N. W., Cleveland 13, Ohio (B)
 Smith, Howard L., Inc., 664 Green Rd., Cleveland 21, Ohio (B)
 Swisher, Mark, Inc., 1600 E. 25th St., Cleveland 14, Ohio (B)
 Ursprung, R. S., Co., The, Hanna Annex, Cleveland 15, Ohio (B)
 Vokes, H. L., Co., The, 1000 Wayside Rd., Cleveland 10, Ohio (B)

(d) OHIO HIGHWAY CHAPTER

President—Richard H. Peirce, The Peirce Constr. Co., 3005 Bellevue Rd., Toledo 6, Ohio
Executive Secretary—Chas. E. McKee, 101 N. High St., Rms. 200-222, Columbus 15, Ohio
Telephone: Fletcher 1579

Baker & Hickey Co., The, 2170 Eakin Rd., Columbus 4, Ohio (Hvy-RR)
 Baltes, A. J., Inc., 11 Olive St., Norwalk, Ohio (H)
 Brewer & Brewer Sons, Inc., 81 W. Water St., Chillicothe, Ohio (H)
 Burns, A. W., Constr. Co., The, 424 Woodland Ave., Columbus 3, Ohio (H)
 Calaway, C. P., 1220 Madison Ave., Toledo 2, Ohio (H)
 Chapin & Chapin, Inc., P. O. Box 413, Norwalk, Ohio (B-H-Hvy)
 Christopher Constr. Co., 8 E. Broad St., Columbus 15, Ohio (Hvy)
 Complete General Constr. Co., 1221 E. 5th Ave., Columbus 3, Ohio (H-Hvy)
 Dienst, Robt. J., 297 S. High St., Columbus 15, Ohio (H)
 Elliott, W. J., McConnelsville, Ohio (H)
 Fauber, L. Walker, Co., 319 Claremont Ave., Ashland, Ohio (H)
 Fenton Constr. Co., Box 310, Ashland, Ohio (H)
 Frowne Constr. Corp., 821 Prospect St., Portsmouth, Ohio (H-Hvy)
 Frysinger Constr. Co., 16 E. Broad St., Columbus 15, Ohio (H)
 Goss, Jos. H., 304 Parker Dr., Newark, Ohio (H)
 Halpin, L. H., 2301 Pemberton Dr., Toledo 6, Ohio (H-Hvy)
 Hatcher Bros., Inc., 116 Schoolway, Mingo Junction, Ohio (H)
 Heffner Constr. Co., The, 509 N. Main St., Celina, Ohio (H)
 Herring, Geo. B., & Son, Inc., 30 Junction St., Mansfield, Ohio (H)
 Hill, John, Contr. Co., The, 491 Lexington Ave., Mansfield, Ohio (H-Hvy)
 Holderman, V. N., & Sons, Inc., 890 E. Oakland Park Ave., Columbus 11, Ohio (H-Hvy-RR)
 Holt, H. W., & Son, 998 W. Mound St., Columbus 8, Ohio (H)
 Howard, G. F., Constr. Co., Inc., W. Main St., Canfield, Ohio (B-H-Hvy)
 Johnson, W. L., Constr. Co., & Associates, 209 E. High St., Hicksville, Ohio (H-Hvy)
 Koski Constr. Co., The, National Bank Bldg., Ashtabula, Ohio (H)
 Langenderfer, Arthur S., Inc., P. O. Box 815, Toledo 1, Ohio (H)
 Loesch & Green Constr. Co., The, 4100 Brookpark Rd., Cleveland 29, Ohio (H-Hvy)
 Mansfield Asphalt Paving Co., R. 153 Orange St., Mansfield, Ohio (H)
 Maxon Construction Company, Inc., 131 N. Ludlow St., Dayton 2, Ohio (Hvy)
 Ohio Road Improvement Co., 30 E. Broad St., Columbus 15, Ohio (H)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

OHIO—Continued

Peirce Constr. Co., The, 3005 Bellevue Rd., Toledo 6, Ohio (H)
 Purdy Constr. Co., The, 200 E. Longview Ave., Box 437, Mansfield, Ohio (H-Hvy-RR)
 Red Eagle Corp., The, 176 Walhalla Rd., Columbus, Ohio (B-H)
 Replogle, C. F., 153 Montclair Ave., Circleville, Ohio (B-H)
 Rhoten Constr. Co., 16 E. Broad St., Columbus 15, Ohio (H)
 Ringwald, W. H., & Sons Co., The, 42 E. 2d St., Chillicothe, Ohio (H-Hvy)
 Smalley, D. R., & Sons, Inc., 426 W. Market St., Celina, Ohio (H)
 Tri-State Asphalt Corp., S. Broadway, Martins Ferry, Ohio (H)
 Visintine & Co., 1315 Edgehill Rd., Columbus 8, Ohio (H)
 Vogt, Elmer, Inc., 859 Wellman Ave., S. E., Massillon, Ohio (H-Hvy-RR)
 Zeller, Max J., Inc., 297 S. High St., Columbus 15, Ohio (H)

(e) ASSOCIATED BUILDING CONTRACTORS OF TOLEDO, INC.

President—Lawrence Naumann, John Naumann & Sons, Inc., 364 Parker Ave., Toledo 5, Ohio.
Executive Secretary—J. Neil Crowley, 201 Belmont Ave., Toledo 2, Ohio

Bentley, A., & Sons Co., The, 201 Belmont Ave., Toledo 2, Ohio (B-Hvy)
 Berkebile, J. H., & Sons, 998 Whittier St., Toledo, Ohio (B)
 Comte Constr. Co., 912 Summit St., Toledo 4, Ohio (B)
 Entenman, Fred W., Inc., 3323 Secor Rd., Toledo, Ohio (B)
 Lathrop, Geo. W., & Sons, Inc., Box 772, Toledo 1, Ohio (B)
 Naumann, John, & Sons, Inc., 364 Parker Ave., Toledo 5, Ohio (B)
 Ruch Constr. Co., The, 895 Spencer St., Toledo, Ohio (B)
 Ruibley & Kuerten, Inc., 316 Pinewood Ave., Toledo, Ohio (B)
 Spieker, Henry J., Co., The, 1418 Elm St., Toledo 1, Ohio (B)
 Suhrbier, Herman J., Co., 1611 Broadway, Toledo, Ohio (B)
 Thal, Stanford E., Inc., 2700 Hill Ave., Toledo, Ohio (B)
 Watts Constr. Co., The, 1235 Miami St., Toledo, Ohio (B-Hvy)

(f) THE MAHONING & SHENANGO VALLEY CHAPTER

President—Geo. W. Wallstrom, Geo. W. Wallstrom, Inc., 100 E. Rayen Ave., Youngstown, Ohio
Executive Secretary—John E. Morley, 211 N. Champion St., Youngstown 3, Ohio
Telephone: Riverside 4-4129
 Bucheit, Jos., & Sons Co., The, 819 Mahoning Ave., Youngstown, Ohio (B)
 Builders Co., Inc., of Youngstown, Ohio, The, 5405 Market St., Youngstown 12, Ohio (B)

Campbell Constr. Co., The, P. O. Box 1190, N. River Rd., Warren, Ohio (B)
 Fortunato, Rocco, & Sons, 2361 Coronado Ave., Youngstown, Ohio (B)
 Gibson, W. B., Co., Inc., The, 200 Chestnut St., N. E., Warren, Ohio (B)
 Heller-Murray Co., The, 222 W. Rayen Ave., Youngstown, Ohio (B)
 Johnson, Adolph, & Son Co., 661 Wick Ave., Youngstown, Ohio (B)
 Katzman, Emanuel, Co., 116 Linden Ave., Youngstown, Ohio (B)
 Lombard, J. P., Co., 211 N. Champion St., Youngstown 3, Ohio (B)
 Murphy, Geo. J., & Co., 519 Belmont Ave., Youngstown, Ohio (B)
 Pesa, Felix, & Sons Co., The, 745 Andrews Ave., Youngstown, Ohio (B)
 Potters Lumber Co., The, 518 Broadway, P. O. Box 66, East Liverpool, Ohio (B-H)
 Salvidge, E. J., Constr. Co., 3026 Southern Blvd., Youngstown 7, Ohio (B)
 Shutrump, Chas., & Sons Co., The, 101 W. Hylda St., P. O. Box 366, Youngstown, Ohio (B)
 Wallstrom, Geo. W., Inc., 100 E. Rayen Ave., Youngstown, Ohio (B)
 Warren Engr. Co., 402 Atlantic St., N. W., P. O. Box 191, Warren, Ohio (B)
 Western Reserve Bldg. Co., Inc., The, 428 Main Ave., S. W., Warren, Ohio (B)

Local Members

Bauer, Martin L., Construction Company, 1909 Manchester Ave., Middletown 22, Ohio (B)
 Benzing, A., & Sons, 709 S. 9th St., Hamilton, Ohio (B)
 Elford, E., & Son, Inc., 555 S. Front St., Columbus 15, Ohio (B-Hvy-RR)
 Johnston, Guy, Lumber & Supply Co., The, 802-810 N. 7th St., Steubenville, Ohio (B)
 Steine-Wolfe, Inc., 128 N. Jefferson St., Fremont, Ohio (B)

35. OKLAHOMA

(a) OKLAHOMA BUILDERS CHAPTER

President—H. R. Lohmann, H. R. Lohmann Co., Philtower Bldg., Tulsa 3, Okla.
Executive Secretary—Mrs. Ruth Ann Leslie, 709 Cravens Bldg., Oklahoma City 2, Okla.
Telephone: Forest 5-1107

Barbour & Short, 323 E. Mosier, Norman, Okla. (B)
 Basanda Constr. Co., 2925 N. W. 39th Terr., Oklahoma City, Okla. (Hvy)
 Bass, D. C., & Sons Constr. Co., 314-16 Bass Bldg., P. O. Box 246, Enid, Okla. (B)
 Boehme Constr. Co., Box 1498, Enid, Okla. (B)
 Bollinger, J. J., Constr. Co., Box 1333, Oklahoma City 1, Okla. (B)
 Brooks, Larry T., P. O. Box 2113, Tulsa, Okla. (B)

Builders Constr. Co., 402 Kerr-McGee Bldg., Oklahoma City 2, Okla. (B)
 Burns Constr. Co., P. O. Box 5235, Tulsa, Okla. (B)
 Burton-Miller Constr. Co., Inc., P. O. Box 57, Ardmore, Okla. (B)
 Bush, E. B., Constr. Co., P. O. Box 5126, Farley Sta., Oklahoma City 7, Okla. (B)
 Chapman Constr. Co., P. O. Box 170, Lawton, Okla. (B)
 Corley Constr. Co., 27th & N. Santa Fe, Oklahoma City 5, Okla. (B)
 Cowen Constr. Co., 214 N. Broadway, Shawnee, Okla. (B)
 Culwell, Haskell, Constr. Co., 40 N. E. 28th, Oklahoma City, Okla. (B)
 Dennehy Constr. Co., 408 Braniff Bldg., Oklahoma City 2, Okla. (B)
 DeWitt Co., The, P. O. Box 7087, Tulsa, Okla. (B)
 Ditmars-Dickmann-Pickens Constr. Co., 3712 W. Okmulgee, Muskogee, Okla. (B)
 Dunning, Chas. M., Constr. Co., P. O. Box 1183, Oklahoma City 1, Okla. (B)
 Dyer Constr. Co., 109 S. Norfolk, Tulsa, Okla. (B)
 Eldridge Constr. Co., P. O. Box 922, Enid, Okla. (B)
 Frederickson-Parks, Inc., 25 N. E. 28th, Oklahoma City, Okla. (B)
 Gehring, C. I., 111 S. Chickasaw, Bartlesville, Okla. (B)
 Grimshaw, W. R., Co., 208-212 KOME Bldg., 8th & Main Sts., Tulsa 3, Okla. (B-Hvy)
 Hannaford Constr. Co., P. O. Box 1717, Tulsa, Okla. (B)
 Harmon Constr. Co., P. O. Box 1414, 100 S. Indiana, Oklahoma City 1, Okla. (B)
 Hoke Constr. Co., P. O. Box 431, Stillwater, Okla. (B)
 Horster Constr. Co., 714 Oil Capitol Bldg., Tulsa 3, Okla. (B)
 Hughes, Chas. T., Constr. Co., 21 N. E. 29, Oklahoma City, Okla. (B)
 Industrial Constr. Co., 1627 W. Main, Oklahoma City 4, Okla. (B)
 J & J Constr. Co., 7512 N. Western Ave., Box 8175, Oklahoma City 14, Okla. (Hvy)
 Langley Constr. Co., 623 S. Xanthus, Tulsa, Okla. (B)
 Lippert Bros., 27th & N. Santa Fe, P. O. Box 3085, Oklahoma City 5, Okla. (B-Hvy)
 Lohmann, H. R., Co., Philtower Bldg., Tulsa 3, Okla. (B)
 Manhattan Construction Co., Manhattan Bldg., Muskogee, Okla. (B-Hvy)
 Martin, Dave, Constr. Co., 610½ Colcord Dr., Tulsa, Okla. (B)
 Martin, John B., Co., Commerce Exchange Bldg., Oklahoma City 2, Okla. (B)
 Mattern Constr. Co., 3130 Woodward Blvd., Tulsa, Okla. (B)
 Mattison, R. E., & Co., Box 8458, Britton Sta., Oklahoma City, Okla. (B-H)
 McCrae & Noftsgier, 5236 Classen, Oklahoma City, Okla. (B)
 Mefford Constr. Co., P. O. Box 668, Enid, Okla. (B)
 Nashert, Walter, Co., 16 N. E. 27th, Oklahoma City 5, Okla. (B)
 Putney, John H., Constr. Co., 133 W. 2d St., Oklahoma City 3, Okla. (B)

A.G.C. DIRECTORY

OKLAHOMA—Continued

Reardon, J. J., Constr. Co., P. O. Box 285, Enid, Okla. (B)
 Redding, Harold L., & Assocs., American National Bank Bldg., P. O. Box 1246, Lawton, Okla. (B)
 Shamrock Constr. Co., 2300 S. Ollie, Oklahoma City, Okla. (B)
 Shelton, W. C., Co., The, 515 S. 4th St., Lawton, Okla. (B)
 Smith, L. E., Constr. Co., P. O. Box 1692, 4944 E. 16th St., Tulsa, Okla. (B)
 Southwest Constr. Corp., P. O. Box 5103, 5100 E. 17th, Tulsa, Okla. (B)
 Suttle, Chas. M., 12 N. W. 8th St., Oklahoma City 3, Okla. (B)
 Tankersley Constr. Co., 803 1st National Bldg., Oklahoma City 2, Okla. (B)
 Thurman, John M., P. O. Box 1076, Borger, Texas (B)
 Tulsa Rig, Reel & Mfg. Co., 1101 Philtower Bldg., P. O. Box 490, Tulsa 1, Okla. (B)
 Walco Engr. & Constr. Co., P. O. Box 3037, Whittier Sta., Tulsa 8, Okla. (B)
 Wells Constr. Co., P. O. Box 4067, Walker Sta., Tulsa 9, Okla. (B)
 Whitehurst Constr. Co., 113 Glenside Ave., Ponca City, Okla. (B)
 Wickersham Constr. Co., 1347 E. 37th, Tulsa, Okla. (B)

(b) ASSOCIATION OF OKLAHOMA GENERAL CONTRACTORS

President—Noland Smith, Noland Smith Constr. Co., Box 761, El Reno, Okla.
Manager—Glenn McDonald, 715 Wells-Roberts Hotel, Oklahoma City, Okla.

Telephone: 2-4265

Allen, D. F., 523 W. Broadway, Henryetta, Okla. (H)
 Amis Constr. Co., 1647 Exchange Ave., Box 1871, Oklahoma City, Okla. (H-Hvy-RR)
 Anchor Constr. Co., 806-808 Manhattan Bldg., Muskogee, Okla. (H-Hvy)
 Anderson Constr. Co., Box 91, McAlester, Okla. (H-RR)
 Austin Contr. Co., 1000 Singleton Blvd., P.O. Box 1590, Dallas, Texas (B-H-RR)
 Banta Constr. Co., 1646 W. Main, Oklahoma City 4, Okla. (H)
 Barber Bros., 724 Wheeler Ave., P. O. Box 374, Fort Smith, Ark. (H-Hvy-RR)
 Barber, E. E., Constr. Co., 1521 George Ave., Box 254, Fort Smith, Ark. (H-RR)
 Baughman, Roy, 4001 N. W. 9th, Oklahoma City, Okla. (H)
 Biles, J. B., Constr. Co., Arnote Bldg., P. O. Box 22, McAlester, Okla. (H)
 Blackburn, W. H., Constr. Co., 1916 N. Broadway, Oklahoma City, Okla. (H-RR)
 Brewer & McMichael, Inc., 314 W. 7th, Box 308, Holdenville, Okla. (H)
 Briscoe, J., Box 188, 414 E. 11th Ave., Stillwater, Okla. (H)
 Broce Constr. Co., P. O. Box 521, Woodward, Okla. (H)
 C & M Constr. Co., 2947 N. E. 23, P. O. Box 6205, Oklahoma City, Okla. (H)

Cohenour Constr. Co., Gilbert Bldg., Box 884, Ardmore, Okla. (H)
 Dahlgren & Brooks, 745 Commerce Exchange Bldg., Oklahoma City, Okla. (H)
 Dunn Fuel & Lumber Co., Coalgate, Okla. (H-Hvy)
 Durrett, Jack, Box 600, Keota, Okla. (H-RR)
 Elliott Bros., Inc., 425 Locust St., Box 425, Perry, Okla. (H)
 Erts, John, Constr. Co., 1517 N. Broadway, Oklahoma City, Okla. (H)
 Evans, S. E., Constr. Co., Box 903, Fort Smith, Ark. (H-Hvy-RR)
 Fisher, J. M., 303 E. Castro, Norman, Okla. (H)
 Fisher, L. S., Woodward, Okla. (B-H-Hvy)
 Frost Constr. Co., Hydro, Okla. (H)
 Fullerton & Hussey, P. O. Box 299, Oklahoma City 1, Okla. (H-Hvy)
 Fulton, W. D., Constr. Co., 2304 N. W. 28th, Oklahoma City, Okla. (H)
 G-I Constr. Co., Box 116, Meeker, Okla. (H)
 Gaines Bros., 530 D St., N. E., Box 1006, Miami, Okla. (B-H-Hvy)
 General Constr. Corp., Capitol Post Office, Box 3097, Oklahoma City, Okla. (H-Hvy)
 Gragg, O. R., Box 261, Henryetta, Okla. (H)
 H & H Materials Co., 2305 N. W. 16th St., Oklahoma City, Okla. (H)
 Hammock, R. W., Rt. 1, Van Buren, Ark. (B-H-Hvy-RR)
 Henryetta Constr. Co., Henryetta, Okla. (H-Hvy)
 Hodges Constr. Co., 2200 S. Air Depot Blvd., Oklahoma City, Okla. (H)
 Honegger Bros. Constr. Co., Kingfisher, Okla. (H)
 Hunter Constr. Co., Box 538, Ada, Okla. (H-Hvy-RR)
 Imperial Paving Co., 700 E. Grand Ave., Oklahoma City 4, Okla. (H-Hvy)
 James, Guy H., Constr., 1816 1st National Bldg., Oklahoma City 2, Okla. (H)
 Kealiher, Paul A., 1217 W. 2d, Checotah, Okla. (H)
 Keck, C. E., Fairview, Okla. (B-H-Hvy)
 Kiewit, Peter, Sons' Co., 1611 N. Broadway, Rm. 205, Oklahoma City, Okla. (H-Hvy)
 Kingery, Elwood, Box 200, Ada, Okla. (H)
 Landt, H. R., 2424 N. W. 12th, Oklahoma City, Okla. (H)
 Layman & Co., P. O. Box 2395, Tulsa, Okla. (H)
 Lemon, Haskell, P. O. Box 7115, Oklahoma City, Okla. (H)
 Logan, W. E., & Sons, 906 Barnes Bldg., P.O. Box 207, Muskogee, Okla. (H-Hvy)
 Lyles & Buckner Constr., Box 23, Muskogee, Okla. (B-H)
 Lynch, Ray W., 2115 N. W. 20th, Oklahoma City, Okla. (H-Hvy)
 McConnell Constr. Co., Rt. 3, Box 619, Oklahoma City, Okla. (H)
 McMichael Concrete Co., 1113 Hunt Bldg., Tulsa 3, Okla. (H-Hvy)
 Metropolitan Paving Co., 300 S. Indiana, Box 3686, Oklahoma City, Okla. (H)

Mid-America Paving Co., Inc., 202-206 E. Plaza Office Bldg., P. O. Box 5567, Midwest City, Okla. (H)
 Moore Bridge Co., Inc., Box 907, Ada, Okla. (H-Hvy)
 Mosher & Kiker, El Reno, Okla. (H)
 Mullinix Constr. Co., 1433 N. W. 5th St., Oklahoma City 6, Okla. (H)
 Odom, A. M., 1308 N. E. 45, Oklahoma City, Okla. (H)
 Oklahoma Paving Co., 4131 N. Portland, Oklahoma City, Okla. (H)
 Pallesen Constr. Co., 2808 N. W. 18, Oklahoma City, Okla. (H)
 Park-Ward Co., Rm. 740, Commerce Exchange Bldg., Oklahoma City, Okla. (H-Hvy)
 Pitts, Elmo, P. O. Drawer 272, Marlow, Okla. (H)
 Plymate, Clay, Co., Inc., Box 7027, 39th Street Sta., Oklahoma City, Okla. (H)
 Poston Sand & Gravel, 6th Ave., E., Lawton, Okla. (H-RR)
 Quapaw Co., The, A St. & Connell Ave., P. O. Box 241, Picher, Okla. (H)
 Raines, J. A., P. O. Box 936, Muskogee, Okla. (H-Hvy)
 Ryan, R. R., Constr. Co., 1401 N. W. 5, Oklahoma City, Okla. (H)
 Sawallisch Constr. Co., 200 W. Elm, P. O. Box 782, El Reno, Okla. (H)
 Smith Bros., Noble, Okla. (H)
 Smith, Noland, Constr. Co., Box 761, El Reno, Okla. (H)
 Standard Paving Co., 2119 E. 11th St., Tulsa, Okla. (H)
 Stebbins Constr. Co., Box 1498, Tulsa, Okla. (H-Hvy)
 Steelman Constr. Co., 2800 N. E. 4th St., P. O. Box 1283, Oklahoma City, Okla. (H-Hvy)
 Steinberg Constr. Co., 1514 S. 79th East Ave., Tulsa, Okla. (H)
 Suddreth Constr. Co., 424 Fidelity Bank Bldg., Oklahoma City, Okla. (Hvy)
 T & R Constr. Co., 403 Barnes Bldg., Muskogee, Okla. (H)
 Thompson, Jim S., 2209 N. Shartel, Oklahoma City, Okla. (H-Hvy)
 Tway, R. R., Co., 710 N. E. 19, Oklahoma City, Okla. (B-H-Hvy)
 Youngman, H. D., P. O. Box 166, Baxter Springs, Kans. (H-Hvy-RR)

36. OREGON

(a) PORTLAND CHAPTER

President—W. R. Rogers, Rogers Constr. Co., 11760 N. E. Glisan, Portland 16, Oreg.
Manager—A. H. Harding, Suite 112, Multnomah Hotel, Portland 4, Oreg.
Telephone: Atwater 7339

Acme Constr. Co., P. O. Box 306, Eugene, Oreg. (H-Hvy)
 Adler Constr. Co., P. O. Box 1710, Rapid City, S. Dak. (H-Hvy-RR)
 Anliker & Robinson, Rt. 1, Box 15, Bend, Oreg. (H)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

OREGON—Continued

- Arenz, Theo. & J. M., 1601 N. E. Columbia Blvd., Portland 11, Oreg. (H-Hvy-RR)
 Asphalt Paving Co., P. O. Box 547, Klamath Falls, Oreg. (H-Hvy)
 Atkinson, Guy F., Co., 5315 N. E. 101st Ave., P. O. Box 7528, Portland 20, Oreg. (B-H-Hvy-RR)
 Babler Bros., 4617 S. E. Milwaukie Ave., Portland 2, Oreg. (H-Hvy)
 Bacaloff, J., Co., 6009 N. E. 60th Ave., Portland, Oreg. (B-Hvy)
 Beebe, Del R., Constr. Co., P. O. Box 61-5, Hawthorne, Nev. (H-Hvy)
 Birkemeier & Saremal, 301 Lewis Bldg., Portland 4, Oreg. (B-H-Hvy)
 Buckler, Geo. H., Co., 4235 S. E. 17th Ave., Portland 2, Oreg. (B-H-Hvy-RR)
 Burger, Michael T., 5914 N. E. 34th Ave., Portland, Oreg. (B-Hvy)
 Butler, Oscar, & Son, 317 Builders Exchange Bldg., Portland, Oreg. (H-Hvy)
 Carl, H. G., Constr. Co., P. O. Box 387, Salem, Oreg. (H-Hvy)
 Cascade Constr. Co., Foot of S. W. Abernathy, Portland 1, Oreg. (H-Hvy)
 Central Heating Co., The, 865 Olive St., Eugene, Oreg. (H-Hvy)
 Coast Constr. & Excavating Co., Box 458, Junction City, Oreg. (H-Hvy)
 Compton, J. C., Co., Box 86, McMinnville, Oreg. (H-Hvy)
 Concrete Constr. Co., P. O. Box 2149, Portland 14, Oreg. (H-Hvy)
 Conley, J. N. & M. J., 4332 N. E. Royal Ct., Portland 13, Oreg. (Hvy)
 Coos Bay Dredg. Co., Inc., P. O. Box 217, Coos Bay, Oreg. (Hvy)
 D-H Paving Co., Rt. 1, Box 148-A, 6800 Evergreen Hwy., Vancouver, Wash. (H)
 Dack, K. C., Constr. Co., P. O. Box 0134, Milton-Freewater, Oreg. (H)
 Dennis, G. D., & Sons, 7355 S. E. Johnson Creek Blvd., Portland 6, Oreg. (H-Hvy)
 Drake, Donald M., Co., 1600 N. W. Savier St., Portland 9, Oreg. (B-Hvy)
 Edlefsen-Weygandt Co., P. O. Box 885, Canby, Oreg. (H-Hvy)
 Empire Constr. Co., 0234 S. W. Bancroft St., Portland 1, Oreg. (H-Hvy)
 Erland & Blicke, 8265 N. Borthwick, P. O. Box 1945, Portland 11, Oreg. (Hvy)
 Fiorito Bros., 1100 Leary Way, Seattle 7, Wash. (H-Hvy)
 Fox, A. T., 1735 Virginia Ave., North Bend, Oreg. (B-Hvy)
 Funderburk Constr. Co., Sutherlin, Oreg. (H-Hvy)
 Gates, E. L., Inc., 444 Center St., Salem, Oreg. (H-Hvy-RR)
 General Construction Company, P. O. Box 3860, 4850 N. W. Front Ave., Portland 8, Oreg. (B-H-Hvy-RR)
 Gibbons & Reed Co., P. O. Box 223, Cascade Locks, Oreg. (H-Hvy-RR)
 Gilo, Cosmo, Lowell, Oreg. (H-Hvy)
 Goulter, K. L., & Co., P. O. Box 337, North Bend, Wash. (H)
 Hall, E. C., Co., 12012 S. W. Barbar Blvd., Portland 19, Oreg. (H-Hvy-RR)
 Halvorson, Carl M., Inc., 218 Builders Exchange Bldg., Portland 4, Oreg. (H-Hvy)
 Hamilton & Thoms, Box 726, Eugene, Oreg. (H-Hvy)
 Harding Blasting Co., 206 S. E. 146th Ave., Portland 16, Oreg. (H-Hvy)
 Harr & Horton, P. O. Box 5662, 9209 N. Calvert St., Portland 17, Oreg. (H-Hvy)
 Hart Constr. Co., 3536 E. 11th St., Tacoma 1, Wash. (Hvy)
 Hauser Constr. Co., 203 Multnomah Hotel, Portland 4, Oreg. (B-H-Hvy-RR)
 Havlik, John, Jr., Scappoose, Oreg. (B-Hvy)
 Healy, S. A., Co., P. O. Box 809, The Dalles, Oreg. (Hvy)
 Heintz, R. A., Constr. Co., 211 N. E. Columbia Blvd., Portland 11, Oreg. (Hvy)
 Hoffman, Lee, P. O. Box 37, 415 N. W. Cedar St., Beaverton, Oreg. (H-Hvy)
 Hoyt, Chas. H., 107 S. 1st, Silverton, Oreg. (H-Hvy)
 Huernergard Elec. Co., 611 N. W. Glisan, Portland 9, Oreg. (H-Hvy)
 Inter-City Sand & Gravel Co., Inc., 3698 Hwy. 99, So., Eugene, Oreg. (H-Hvy)
 Jacobsen, K. F., & Co., Inc., 1601 N. E. Columbia Ave., Portland 11, Oreg. (H-Hvy)
 James & Yost, Inc., 5910 N. E. Ainsworth St., P. O. Box 1025, Portland, Oreg. (H-Hvy)
 Jarl, Vernie, Box 254, Gresham, Oreg. (H)
 Kern & Kibbe, 8706 N. Bradford St., P. O. Box 2560, Portland 13, Oreg. (B-H-Hvy-RR)
 Ketell Constr. Co., 224 Board of Trade Bldg., Portland 4, Oreg. (B-Hvy)
 Kiewit, Peter, Sens' Co., 765 Douglas St., P. O. Box 491, Longview, Wash. (H-Hvy-RR)
 Kovtynovich, John, 395 Skyline Loop, Eugene, Oreg. (H)
 Kuckenberg Constr. Co., 11104 N. E. Holman St., P. O. Box 7407, Parkrose Sta., Portland 20, Oreg. (B-H-Hvy-RR)
 Larson Constr. Co., 34th & Leif Erickson, Astoria, Oreg. (Hvy)
 Lillebo, Tom, Reedsport, Oreg. (H-Hvy)
 Lind, Geo. W., 5000 N. E. Killingsworth Ave., Portland 13, Oreg. (H-Hvy)
 Lindstrom Bros., Inc., 3524 S. E. 174th Ave., Portland, Oreg. (B-H-Hvy)
 Lininger, M. C. & Sons, Hamrick Rd., P. O. Box 1386, Medford, Oreg. (H)
 Lord, P. S., Mechanical Contrs., 4507 S. E. Milwaukie Ave., Portland 2, Oreg. (Hvy)
 Lyons, Frank, & Co., 5200 N. E. Alberta, Portland 13, Oreg. (H-Hvy-RR)
 Macco Corp., 14409 S. Paramount Blvd., Paramount, Calif. (H-Hvy)
 Malcom, C. T., 4085 N. Columbia Blvd., P. O. Box 5652, Kenton Sta., Portland, Oreg. (H-Hvy)
 Marshall Constr. Co., 890 Mandrona Ave., P. O. Box 1032, Hermeston, Oreg. (B-Hvy)
 McCormack Constr. Co., S. E. 3d & Goodwin Sts., Pendleton, Oreg. (B-Hvy)
 McDougall, Natt, Co., 824 Pittock Block, Portland 5, Oreg. (B-H-Hvy-RR)
 McKinnon Constr. Co., Rt. 1, Box 187, Sandy, Oreg. (H-Hvy)
 McNary Dam Contrs., P. O. Box 132, Umatilla, Oreg. (Hvy)
 McNutt Bros., 351½ E. Broadway, Eugene, Oreg. (H-Hvy-RR)
 Miller & Strong, Inc., 3871 Royal Rd., P. O. Box 292, Eugene, Oreg. (H-Hvy)
 Montag, C. J., & Sons, 7805 N. E. Halsey, Portland 13, Oreg. (B-H-Hvy)
 Morrison-Knudsen Co., Inc., 212 S. E. 1st St., Pendleton, Oreg. (B-H-Hvy-RR)
 Morrison & Lamping, P. O. Box 597, Walla Walla, Wash. (H)
 Newport Constr. Co., 7031 N. E. Halsey St., Portland 13, Oreg. (H-Hvy-RR)
 Norris, Guy J., 1425 4th Ave., Seattle 1, Wash. (H)
 Olson, Russell, Constr. Co., 144 S. E. 1st Ave., P. O. Box 272, Pendleton, Oreg. (H)
 O'Neil, C. R., Rt. 2, Box 116, Creswell, Oreg. (H-Hvy)
 Oregon Asphaltic Paving Co., 0441 S. W. Porter, Portland 1, Oreg. (H-Hvy-RR)
 Pacific Pipeline Constr. Co., P. O. Box 4213, Portland 8, Oreg. (Hvy)
 Palmberg, H. G., Pier 3, Port Docks, P. O. Box 991, Astoria, Oreg. (Hvy)
 Papin, J. C., Rt. 1, Box 258, Sandy, Oreg. (H-Hvy-RR)
 Parker & Fuhrman Co., 11524 S. E. Foster Rd., Portland, Oreg. (H-Hvy)
 Parker-Schram Co., 200 Builders Exchange Bldg., Portland 4, Oreg. (B-H-Hvy-RR)
 Perkins Bros., 8535 S. E. Stark St., Portland 16, Oreg. (H-Hvy)
 Peterson, H. M., & Co., 13548 N. E. Glisan, Portland 16, Oreg. (H-Hvy)
 Portland Road & Drive Co., 7295 S. E. King Rd., Portland, Oreg. (H)
 Portland Tug & Barge Co., 39 Hinds St., Seattle 4, Wash. (Hvy-RR)
 R & M Constr. Co., 136 Main St., P. O. Box 426, Central Point, Oreg. (H)
 Raymond Concrete Pile Co., 414 Equitable Bldg., Portland 4, Oreg. (Hvy)
 Robson, R. M., 4720 N. E. Going St., P. O. Box 5085, Portland 13, Oreg. (B-Hvy)
 Rogers Constr. Co., 11760 N. E. Glisan, Portland 16, Oreg. (H-Hvy)
 Ruedy, Eugene, Co., 2919 N. W. Nicolai St., Portland 10, Oreg. (Hvy)
 Rushlight Automatic Sprinkler Co., 55 N. E. Farragut St., P. O. Box 1996, Piedmont Sta., Portland 11, Oreg. (B-Hvy)
 Salem Sand & Gravel Co., 1405 N. Front St., Salem, Oreg. (H-Hvy)
 Samuel, B. H., & Sons, 2114 N. E. 27th Ave., Portland 13, Oreg. (Hvy-RR)
 Saxton, A. H., & Sons, Rt. 2, P. O. Box 200, Corvallis, Oreg. (H-Hvy)
 Schrader Constr. Co., 3030 S. E. Hawthorne Blvd., Portland 15, Oreg. (B-Hvy)
 Shilling, L. D., 3144 W. 11th St., Eugene, Oreg. (H-Hvy)
 Slate, Fred H. Co., Oreg. Ltd., 7805 S. W. 40th Ave., Portland 19, Oreg. (H-Hvy-RR)

OREGON—Continued

Smith Bros. Gen. Contrs., Inc., 3801 4th Plain Rd., P. O. Box 96, Vancouver, Wash. (Hvy)
 Snook Bros., P. O. Box 687, Corvallis, Oreg. (B-H-Hvy)
 Somers, F. L., P. O. Box 938, Klamath Falls, Oreg. (H-Hvy)
 Soule, O. L., 2645 S. E. 111th, Portland 66, Oreg. (B-H-Hvy)
 Starr, H. A., 2425 N. Commercial St., P. O. Box 7724, Portland 12, Oreg. (B-Hvy)
 Stevenson Constr. Co., 2045 S. 19th St., Salem, Oreg. (H)
 Strong & Macdonald, Inc., 4045 Ruston Way, Tacoma 2, Wash. (H-Hvy)
 Tru-Mix Concrete Co., 248 McAndrews Rd., P. O. Box 1147, Medford, Oreg. (H-Hvy)
 United Contr. Co., 9898 N. E. Hancock Dr., Box 5075, Portland 13, Oreg. (B-H-Hvy-RR)
 Utah Construction Co., 1 Montgomery St., San Francisco 4, Calif. (Hvy-RR)
 Ward, Ken, Constr. Co., 5120 S. E. Milwaukie Ave., Portland 2, Oreg. (B-Hvy)
 Warren Northwest, Inc., P. O. Box 5072, 9860 N. E. Hancock Dr., Portland 13, Oreg. (B-H-Hvy-RR)
 Watts, J. G., Constr. Co., 4538 S. W. Macadam Ave., Portland 1, Oreg. (B-H)
 Werner, H. C., Inc., 3170 W. 11th, Eugene, Oreg. (H-Hvy)
 White Bros. Constr. Co., Inc., P. O. Box 376, 3d & Sumach, Walla Walla, Wash. (H-Hvy)
 Willamette Tug & Barge Co., Ft. of N. Portsmouth, Box 2650, St. Johns Sta., Portland 3, Oreg. (Hvy)
 Yett, Porter W., 6500 N. E. Ainsworth St., Portland 13, Oreg. (H-Hvy-RR)
 Yocom, O. C., P. O. Box 566, McMinnville, Oreg. (H-Hvy)

(b) PORTLAND CHAPTER, BUILDING DIVISION

President—B. Burns Hoffman, L. H. Hoffman Co., 715 S. W. Columbia St., Portland 1, Oreg.
Secretary-Treasurer—Wilford C. Long, 4100 S. W. Barbur Blvd., Portland 1, Oreg.
Telephone: Atwater 3387

Brewton, Howard, 716 N. E. 3d Ave., Portland 14, Oreg. (B)
 Burns, Tom, & Co., Inc., 2940 S. E. Belmont, Portland 15, Oreg. (B)
 Drake, Donald M., Co., 1600 N. W. Xavier St., Portland 9, Oreg. (B)
 Halvorson, Carl M., Inc., 218 Builders Exchange Bldg., Portland 4, Oreg. (B)
 Hammond, Ross B., Co., 1241 N. Williams Ave., P. O. Box 3901, Portland 8, Oreg. (B)
 Hanson, Anfelt B., 4115 S. E. Ogden St., Portland 2, Oreg. (B)
 Hoffman, L. H., Co., 715 S. W. Columbia St., Portland 1, Oreg. (B)

Hoffman, Lee, P. O. Box 37, 415 N. W. Cedar St., Beaverton, Oreg. (B)
 Industrial Engrs. & Contrs., Inc., 711 Middle Waterway, P. O. Box 1096, Tacoma, Wash. (B)
 Isackson, Geo., Co., 1825 S. E. Exeter Dr., P. O. Box 4620, Portland, Oreg. (B)
 Juhr & Sons, 1339 S. E. Gideon St., Portland 2, Oreg. (B)
 Mason, Henry M., Co., Inc., 2206 N. W. Thurman, Portland 10, Oreg. (B)
 Parker-Johnson Co., 2002 S. E. Clinton, Portland 2, Oreg. (B)
 Petersen, A. V., Co., 2827 N. E. Glisan St., P. O. Box 2368, Portland 14, Oreg. (B)
 Reimers & Jolivet, 435 Builders Exchange Bldg., Portland 4, Oreg. (B)
 Robertson, Hay & Wallace, 1801 S. E. Grand Ave., Portland 14, Oreg. (B)
 Settergren, E. E., 3723 S. E. 21st Ave., P. O. Box 2351, Portland 14, Oreg. (B)
 Smith-Phillips Co., 7402 S. W. Macadam, Portland 1, Oreg. (B)
 Timber Structures, Inc., 3400 N. W. Yeon Ave., P. O. Box 3782, Portland 8, Oreg. (B)
 Viesko & Post, 1440 S. 13th St., P. O. Box 69, Salem, Oreg. (B)
 Waale-Camplan Co., 2100 S. W. Jefferson St., Portland 1, Oreg. (B)

37. PENNSYLVANIA

(a) PENNSYLVANIA BUILDERS CHAPTER

President—Stanford C. Seiple, 809 N. 7th St., Sunbury, Pa.
Executive Director—Geo. M. Schmeltzer, State Chamber of Commerce Bldg., 222 N. 3rd St., Harrisburg, Pa.
Telephone: 8-8235

Alexander, H. B., & Son, Inc., 315 Vaughn St., Harrisburg, Pa. (B)
 Anderson, L. C., & Sons, 917 Mifflin St., Huntingdon, Pa. (B)
 Austin, E. E., & Son, 1919 Reed St., Erie, Pa. (B)
 B. D. & W., Inc., R. D. 1, Grantville, Pa. (B)
 Berkebile Bros., 626 Swank Bldg., Johnstown, Pa. (B)
 Carstensen, Inc., 302 Swank Bldg., Johnstown, Pa. (B)
 Coon, B. G., Constr. Co., 278 Union St., Luzerne, Pa. (B)
 Cump, Earl L., 251 Park Ave., Chambersburg, Pa. (B)
 Cuppels, F. J., 470 Tioga St., Kingston, Pa. (B)
 Davis, C. C., Constr. Co., Rear 220 Bridge St., New Cumberland, Pa. (B)
 Evert, S. H., Co., Inc., Danville Rd., P. O. Box 89, Bloomburg, Pa. (B)
 Focht, L. H., & Son, Inc., 402 Baer Bldg., Reading, Pa. (B)
 Gehron, Jacob, Co., Inc., The, 607 Cemetery St., Williamsport 33, Pa. (B)
 Hafer, Guy J., 739 Fairground Ave., Chambersburg, Pa. (B)

Haldeman, M. L., & Son, 103 W. Chocolate Ave., Hershey, Pa. (B)
 Hawbaker, J. Alvin, Inc., S. Atherton St., State College, Pa. (B)
 Helwig, Fred R., Green & Pine Sts., Millersburg, Pa. (B)
 Hunsicker, L. W., Co., 821 Chew St., Allentown, Pa. (B)
 Machin, E. C., Inc., 1024 N. Quebec St., Allentown, Pa. (B)
 Mastriani, S. G., Co., Lincoln Bldg., P. O. Box 509, Scranton, Pa. (B)
 McKinney Constr. Co., Chestnut & Awl Sts., Sunbury, Pa. (B)
 Moseman Constr. Co., Inc., North Office—River House, 2311 N. Front St., Harrisburg, Pa. (B)
 Mowery, R. S., & Sons, Inc., P. O. Box 367, Carlisle, Pa. (B)
 Noonan, R. S., Inc., 26 N. Duke St., York, Pa. (B)
 Orr, J. C., & Son, 438 7th Ave., Altoona, Pa. (B)
 Ortman & Reitze, P. O. Box 448, Meadville, Pa. (B)
 Reindollar, I., & Son, Inc., 35 N. George St., York, Pa. (B)
 Ritter Bros., 1511 N. Cameron St., Harrisburg, Pa. (B)
 Roller, Geo. H., Col., Inc., 416 Washington Blvd., Williamsport, Pa. (B)
 Seiple, Stanford C., 809 N. 7th St., Sunbury, Pa. (B)
 Sessinghaus & Ostergaard, Inc., 1115 Peach St., Erie, Pa. (B)
 Sherk, Henry, Co., 1115 Sassafras St., Erie, Pa. (B-Hvy)
 Sordoni Constr. Co., Inc., 45 Owen St., Forty Fort, Wilkes-Barre, Pa. (B-Hvy)
 Spera Constr. Co., 1719 N. Front St., Harrisburg, Pa. (B)
 Tabone & Barbera, 186 N. Main St., Pittston, Pa. (B)
 Upton-Lang Co., 1009 Commerce Bldg., Erie, Pa. (B)
 Warner, A. R., & Son, 41 E. Main St., Waynesboro 41, Pa. (B)
 Williams, H. A., Inc., P. O. Box 418, Allentown, Pa. (B)
 Wilson Constr. Co., Inc., 305 Bedford St., Johnstown, Pa. (B)
 Yenter, J. C., Chamber of Commerce Bldg., Tyrone, Pa. (B)

(b) MASTER BUILDERS ASSOCIATION OF ALLEGHENY COUNTY

President—O. H. Martin, O. H. Martin Co., 18 1st St., Sharpsburg, Pittsburgh 15, Pa.
Secretary—Wm. C. Bowden, 800 Standard Life Bldg., Corner of 4th Ave. & Smithfield St., Pittsburgh 22, Pa.
Telephone: Atlantic 1-2594
 Allegheny Bldg. & Supply Co., 9th & Birmingham Sts., Pittsburgh 3, Pa. (B)
 Barney, W. J., Corp., 1203 Western Ave., Pittsburgh 12, Pa. (B)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

PENNSYLVANIA—Continued

Busse, Henry, 112 Wabash St., Pittsburgh 20, Pa. (B)
 Casey, John F., Co., P. O. Box 1888, Pittsburgh 30, Pa. (B)
 Chilli, Geo. H., 1st National Bank Bldg., Homestead, Pa. (B)
 Crump, Edw., Jr., Inc., 4031 Bigelow Blvd., Pittsburgh 13, Pa. (B)
 Dick Constr. Co., 2532 Library Rd., Pittsburgh 10, Pa. (B)
 Eichleay Corp., 33 S. 19th St., Pittsburgh 3, Pa. (B)
 Fuller, George A., Company, 511 Wood St., Pittsburgh 22, Pa. (B)
 Goodwin, C. J., 6201 Station St., Pittsburgh 6, Pa. (B)
 Groomes Constr. Co., 202 Highland Ave., Cheswick, Pa. (B)
 Harrison Construction Company, 1101 Western Ave., Pittsburgh 33, Pa. (B-H-Hvy)
 Hoffman, F. Co., 901 Wood St., Wilkensburg 21, Pa. (B)
 Holmes Corp., The, P. O. Box 42, Glenshaw, Pa. (B)
 Hospital Constrs., Inc., 7025 Campania Ave., Pittsburgh 6, Pa. (B)
 Landau Bros. Bldg. Co., 125 1st Ave., Pittsburgh 22, Pa. (B)
 Martin, Clement, Inc., 6230 Penn Ave., Pittsburgh 6, Pa. (B)
 Martin & Nettrour Contr. Co., 803-810 Farmers Bank Bldg., 5th Ave., & Wood St., Pittsburgh 22, Pa. (B)
 Martin, O. H., Co., 18 1st St., Sharpsburg, Pittsburgh 15, Pa. (B)
 Mellon-Stuart Co., 210 E. Park Way, Pittsburgh 12, Pa. (B)
 Minnotte Bros. Co., Riverton St. & Baldwin Rd., Hays, Pittsburgh, Pa. (B)
 Navarro Corp., 6219 Broad St., Pittsburgh 6, Pa. (B)
 Ragner-Benson, Inc., 801 Investment Bldg., Pittsburgh 22, Pa. (B)
 Riffe, David T., Inc., 1006 Forbes St., Pittsburgh 19, Pa. (B)
 Robison Constr. Co., 419 Melwood St., Pittsburgh 13, Pa. (B)
 Seaman Co., 5145 Liberty Ave., Pittsburgh 24, Pa. (B)
 Siesel Constr. Co., 204 Flannery Bldg., Pittsburgh 13, Pa. (B)
 Starrett Brothers and Eken, Inc., 333 Duquesne Way, Pittsburgh 22, Pa. (B)
 Trimble Co., The, 1719 Pennsylvania Ave., Pittsburgh 33, Pa. (B)
 Turner Construction Co., c/o Mellon National Bank & Trust Co., P. O. Box 656, Pittsburgh 30, Pa. (B)
 Uhl Constr. Co., Box 308, Allison Park, Pa. (B)
 Unkefer Bros. Constr. Co., 516 Bessemer Bldg., Pittsburgh 22, Pa. (B)
 Wehr, Edw. A., Highland Bldg., Pittsburgh 6, Pa. (B)
 Wilcox, Ira C., Co., 6415 Hamilton Ave., Pittsburgh 6, Pa. (B)
 Winner, B. L., Co., Inc., 2440 Maple Ave., Pittsburgh 14, Pa. (B)

(c) CONSTRUCTORS ASSOCIATION OF WESTERN PENNSYLVANIA

President—H. H. Sturdy, Dravo Corporation, The Contracting Division, Neville Island, Pittsburgh 25, Pa.
Executive Secretary—Thurman C. Tejan, 805 Columbia Bldg., Pittsburgh 22, Pa.

Telephone: Court 1-2888

Allegheny Asphalt & Paving Co., 8th & Birmingham Sts., Pittsburgh 3, Pa. (H)
 Allen, H. R., Co., Beaver, Pa. (H)
 Altoona Constr. Corp., 516 Hart St., Hollidaysburg, Pa. (H)
 Bates & Rogers Construction Corporation, 600 W. Jackson Blvd., Chicago 6, Ill. (B-Hvy-RR)
 Beaver Asphalt Paving & Constr. Co., New Brighton, Pa. (H)
 Becksmith Engr. Co., 326 Bakewell Bldg., 417 Grant St., Pittsburgh 19, Pa. (H)
 Ben Constr. Co., 101 Hargrove St., Pittsburgh 26, Pa. (H)
 Black Top Paving Co., Oakland Ave., Washington, Pa. (H)
 Booth & Flinn Co., 1942 Forbes St., Pittsburgh 19, Pa. (H-Hvy)
 Boquet Constr. Co., Inc., 4662 Old Boston Rd., Pittsburgh 10, Pa. (H)
 Boyer, John E., Washington, Pa. (H)
 Brayman Constr. Co., 67 N. Harrison Ave., Pittsburgh 2, Pa. (Hvy)
 Brotemarkle, S. T., Constr. Co., P. O. Box 393, Cumberland, Md. (H)
 Bryan, Frank, Inc., 1623 Chartiers Ave., McKees Rocks, Pa. (H-Hvy)
 Burrell Constr. & Supply Co., 1 5th St., New Kensington, Pa. (H)
 Cafardi, A. R., 116 Craft Ave., Pittsburgh 13, Pa. (Hvy)
 Casey, John F., Co., P. O. Box 1888, Pittsburgh 30, Pa. (Hvy-RR)
 Coffeen, A. R., Co., Allison Park, Pa. (H)
 Columbia Contr. Co., 1007 McCartney St., Pittsburgh, Pa. (H)
 Connelly, D. T., 475 Allison Ave., Washington, Pa. (H)
 Cornish Constr. Co., 214 Alexander Ave., Greensburg, Pa. (Hvy)
 Dinardo, Inc., 331 Bouquet St., Oakland Sta., Pittsburgh 13, Pa. (H-Hvy)
 Donatelli, Frank, Co., Inc., Broad & Euclid Aves., Pittsburgh 6, Pa. (H-Hvy)
 Dravo Corporation, The Contracting Division, Neville Island, Pittsburgh 25, Pa. (Hvy)
 Duffy Constr. Corp., 540 Terminal Bldg., Cleveland, Ohio (Hvy)
 Eichleay Corp., 33 S. 19th St., Pittsburgh 3, Pa. (Hvy)
 Eidemiller, Adam, Greensburg, Pa. (H-Hvy)
 Ferguson & Edmondson Co., 412 Keystone Bldg., Pittsburgh 22, Pa. (H-Hvy-RR)
 Freeland Constr. Co., 402 Keystone Bldg., Pittsburgh 22, Pa. (H-Hvy)
 Furman, Roy E., Waynesburg, Pa. (H)
 Gavlik Constr. Co., Glenwillard, Pa. (H)
 Groves, S. J., & Sons Co., Rt. 35 at Port Reading RR, P. O. Box 485, Woodbridge, N. J. (H-Hvy)
 Harrison Construction Company, 1101 Western Ave., Pittsburgh 33, Pa. (H-Hvy)

Hazelwood, Geo. F., Co., Inc., The, 36 Howard St., Cumberland, Md. (H)
 Holderman, V. N., & Sons, Inc., 890 E. Oakland Park Ave., Columbus 11, Ohio (H)
 Holmes Constr. Co., The, Wooster, Ohio (Hvy)
 Hunkin-Conkey Constr. Co., The, 1740 E. 12th St., Cleveland 14, Ohio (H-Hvy)
 Istock, Nick, 704 Ann St., Aliquippa, Pa. (Hvy)
 Jacobsen, Carl J., 1840 Cecil St., Sharpsburg, Pa. (Hvy)
 Jacobson, Bert A., Co., Inc., 2006 Law & Finance Bldg., Pittsburgh 19, Pa. (Hvy)
 Johnson, Drake & Piper, Inc., 86 Trinity Pl., New York 6, N. Y. (H-Hvy)
 Johnson, W. L., Construction Co., 209 E. High St., Hicksville, Ohio (H-Hvy-RR)
 Julian Paving Co., 405 S. Dupont Rd., Wilmington, Del. (H)
 Kelley & Meyer Co., The, 1211 Gibson St., Youngstown, Ohio (H)
 Kukurin, Frank, & Sons, Inc., Lincoln Hwy., E. McKeesport, Pa. (Hvy)
 Langenfelder, C. J., & Son, Inc., 8427 Pulaski Hwy., Baltimore 24, Md. (H)
 Lightholder, S. P., Co., Canonsburg, Pa. (H)
 M & S Constr. Co., Inc., 1558 Electric Ave., East Pittsburgh, Pa. (H)
 Macdonald Engr. Co., 188 W. Randolph St., Chicago 1, Ill. (Hvy)
 Mannella, Frank, Constr. Co., 7003 Chaucer St., Pittsburgh 8, Pa. (Hvy)
 Mario Constr. Co., Inc., 15 Boundary St., Pittsburgh 13, Pa. (H)
 Marion Coal & Supply Co., Jones Law Bldg., Pittsburgh, Pa. (H)
 Martin, O. H., Co., 18 1st St., Sharpsburg, Pittsburgh 15, Pa. (Hvy)
 Mashuda, Frank, Co., 5556 W. Roosevelt Dr., Milwaukee 10, Wis. (H)
 McCrady, Edw., Jr., & Son, Pitt St. & Wallace Ave., Pittsburgh 21, Pa. (H-Hvy)
 McQuade, Jas. H., & Sons Co., 417 Grant St., Pittsburgh 19, Pa. (Hvy)
 McShane Contr. Co., 1007 McCartney St., Pittsburgh, Pa. (Hvy)
 Medis, Paul L., 200 Saw Mill Run Blvd., Pittsburgh 26, Pa. (H)
 Myers-Johnson Co., 28 E. Market St., Lewis-town, Pa. (H)
 Myers, Ralph, Contr. Corp., Salem, Ind. (H)
 Nardulli & Sons Co., Inc., 947 Butler St., Pittsburgh 23, Pa. (H)
 O'Herron, M., Co., 4002 Lorigan St., Pittsburgh 24, Pa. (H)
 Palombo, D., Sons, 1600 Washington Rd., Pittsburgh 16, Pa. (H)
 Patterson Constr. Co., Monongahela, Pa. (H-Hvy)
 Perini, B., & Sons, Inc., P. O. Box 8157, Squirrel Hill Sta., Pittsburgh, Pa. (H-Hvy)
 Pittsburgh-Des Moines Steel Co., Neville Island, Pittsburgh, Pa. (Hvy)
 Plummer, J. Lee, Inc., Beaver Rd., Sewickley, Pa. (H)
 Porterfield-Binger Co., Youngstown, Ohio (H)
 Ragner Bros., Grant Bldg., Pittsburgh 19, Pa. (Hvy)
 Reason, Edw., 3031 W. Liberty Ave., Pittsburgh 16, Pa. (Hvy)

PENNSYLVANIA—Continued

Rider Constr. Co., Charleroi, Pa. (H)
 Rochester Coal-Trucking & Constr. Co., Box 270, Rochester, Pa. (H)
 Rupp Bros., Inc., Box 81, Kittanning, Pa. (H)
 Sanctis Constr., Inc., 410 Marlowe St., Pittsburgh 20, Pa. (H-Hvy)
 Trimble Co., The, 1719 Pennsylvania Ave., Pittsburgh 33, Pa. (Hvy-RR)
 Vang, Geo., Inc., Grant Bldg., Pittsburgh 19, Pa. (Hvy)
 Vipond & Vipond, 214 Walnut St., Hollidaysburg, Pa. (H)
 Wandel, Bruce B., 1615 Bidwell St., Pittsburgh, Pa. (Hvy)
 Wescott, Louis S., 118 Oak Glenn Rd., Pittsburgh 9, Pa. (H)
 Wikstrom, A. S., Inc., 33 Rector St., Skaneateles, N. Y. (H)
 Wilkins Constr. Co., 2713 Sarah St., Pittsburgh, Pa. (Hvy)
 Winkelman, D. W., Co., Inc., 205 Harrison St., Syracuse 2, N. Y. (H-Hvy)

(d) PHILADELPHIA CHAPTER

President—J. Russell Cullen, Nason & Cullen, 6522 Vine St., Philadelphia 39, Pa.

Secretary—Harry P. Taylor, Suite 210, Architects Bldg., 17th & Sansom Sts., Philadelphia 3, Pa.

Telephone: Rittenhouse 6-4606 & 4607

Baker, Wm. D., Co., 1717 Sansom St., Philadelphia 3, Pa. (B)
 Ballinger, R. C., Co., National Bank of Narberth Bldg., Narberth, Pa. (B)
 Baton Constr. Corp., 1717 Sansom St., Philadelphia 3, Pa. (B)
 Brosz, Paul, & Sons, Inc., 2511 W. Huntingdon St., Philadelphia 32, Pa. (B)
 Campion, F. K., 1905 Spring Garden St., Philadelphia 30, Pa. (B)
 Clearkin, Jas. J., 4450 Leiper St., Philadelphia 24, Pa. (B)
 Cornell, J. S., & Son, Inc., 1528 Cherry St., Philadelphia 2, Pa. (B)
 Davis, F. B., Sons, 240 N. 16th St., Philadelphia 2, Pa. (B)
 Day & Zimmermann, Inc., 1700 Sansom St., Philadelphia 3, Pa. (B)
 Durrell, E. Clifford, & Son, Inc., 1910 N. Marshall St., Philadelphia 22, Pa. (B)
 Eddleman, C. C., 419 Green Lane (Roxborough), Philadelphia 28, Pa. (B)
 English, Frank G., & Sons, 1606 N. Carlisle St., Philadelphia 21, Pa. (B)
 Evans, Geo. H., & Co., 1914 Spring Garden St., Philadelphia 30, Pa. (B)
 Farrell, Jos. R., 4422 Market St., Philadelphia 4, Pa. (B)
 Fleming Co., 1717 Sansom St., Philadelphia 3, Pa. (B)
 Gill, Harry, Co., 2513 Germantown Ave., Philadelphia 33, Pa. (B)
 Golder Constr. Co., Inc., Market St. National Bank Bldg., Philadelphia 7, Pa. (B)
 Goldman, Perry J., Constr. Co., Lewis Tower Bldg., 15th & Locust Sts., Philadelphia 2, Pa. (B)

Hallahan, John P., Inc., Fuller Bldg., 10 S. 18th St., Philadelphia 3, Pa. (B)
 Haverstick-Borthwick Co., 3416 N. Sydenham St., Philadelphia 40, Pa. (B)
 Hughes-Foulkrod Co., 1505 Race St., Philadelphia 2, Pa. (B)
 Hunt, David M., 112 S. 16th St., Philadelphia 2, Pa. (B)
 Hydrocarbon Research, Inc., 115 Broadway, New York 6, N. Y. (B-Hvy)
 Irwin & Leighton, 1505 Race St., Philadelphia 2, Pa. (B)
 Keefer, E. H., & Son, 1321 Rodman St., Philadelphia 47, Pa. (B)
 Kidde, Walter, Constr., Inc., 140 Cedar St., New York 6, N. Y. (B)
 Kuljian Corp., 1200 N. Broad St., Philadelphia 21, Pa. (B)
 Lamb, Robt. E., & Son, Inc., 3429 W. Indiana Ave., Philadelphia 32, Pa. (B)
 Laub Constr. Co., Inc., 1518 Walnut St., Philadelphia 2, Pa. (B)
 Lauter Constr. Co., 112 S. 16th St., Philadelphia 2, Pa. (B)
 Linker, Wm., Co., Inc., 2036 Arch St., Philadelphia 3, Pa. (B)
 Lotz, Wm. F., Adams Ave. & Orthodox St., Philadelphia 24, Pa. (B)
 M. & L. Constr. Co., 108 S. 40th St., Philadelphia 4, Pa. (B)
 Master Masons Constr. Co., 1619 W. Thompson St., Philadelphia 21, Pa. (B)
 McQuade, John S., Jr., 1318-20-22 Parrish St., Philadelphia 23, Pa. (B)
 McShain, Inc., 17th & Spring Garden, Philadelphia, Pa. (B)
 Murphy-McDonnell Co., 104 69th St. Theatre Bldg., Upper Darby, Pa. (B)
 Murphy-Quigley & Co., 1518 Sansom St., Philadelphia 2, Pa. (B)
 Nason & Cullen, 6522 Vine St., Philadelphia 39, Pa. (B)
 Neiman, H. B., Co., 1127 Western Saving Fund Bldg., Philadelphia 7, Pa. (B)
 Rafferty, John E., Jr., Inc., Liberty Trust Bldg., Philadelphia 7, Pa. (B)
 Rohleder, Chas. F., 600 Schuylkill Ave., Philadelphia 46, Pa. (B)
 Rust, Henry R., Inc., 19 S. 8th St., Philadelphia 6, Pa. (B)
 Sauter, Godfrey, 1505 Race St., Philadelphia 2, Pa. (B)
 Schwertner, Chas. H., & Son, 1220 Hamilton St., Philadelphia 23, Pa. (B)
 Shaffer, Leonard, Co., 207 S. 24th St., Philadelphia 3, Pa. (B)
 Shandles, H. M., 617 Pine St., Philadelphia 6, Pa. (B)
 Shoemaker, R. M., Co., 1619 Sansom St., Philadelphia, Pa. (B)
 Smith & Buzby, 269 S. Van Pelt St., Philadelphia 3, Pa. (B)
 Smolark, J. A., Ft. Washington, Pa. (B)
 Steele, Jack S., Constr. Co., 1300 W. Hunting Park Ave., Philadelphia 40, Pa. (B)
 Steele, Pownall & Gebhardt, Rm. 426, 1505 Race St., Philadelphia 2, Pa. (B)
 Stofflet & Tillotson, 2043 Eastburn Ave., Philadelphia 38, Pa. (B)
 Stoud, Wm. J., 1925 Ashley Rd., Philadelphia 38, Pa. (B)

Sturm & Co., Inc., 4531-33 N. Front St., Philadelphia 40, Pa. (B)
 Taggart, Henry M., Inc., 1924 Chestnut St., Philadelphia 3, Pa. (B)
 Towne, Constr. Co., 1505 Race St., Philadelphia 2, Pa. (B)
 Townsend & Elfreth Co., 1601 Chestnut St., Philadelphia 3, Pa. (B)
 Turner Construction Co., 1500 Walnut St., Philadelphia 2, Pa. (B)
 United Bldg. Constr. Co., 845 N. 19th St., Philadelphia 30, Pa. (B)
 Unkefer Bros. Constr. Co., 112 S. 16th St., Philadelphia 2, Pa. (B)
 Wallace, Wm., 337 S. Camac St., Philadelphia 7, Pa. (B)
 Wambold, Edgar M., 201 N. Broad St., Philadelphia 7, Pa. (B)
 Wark & Co., 1920 Sansom St., Philadelphia 3, Pa. (B)
 Welsbach Corp., 1500 Walnut St., Philadelphia 2, Pa. (B)
 White, Barclay & Co., Inc., 22 N. 36th St., Philadelphia 4, Pa. (B)
 Wigton-Abbott Corporation, 1225 South Ave., Plainfield, N. J. (B)
 Wilson, Frank H., 125 Coulter Bldg., Ardmore, Pa. (B)
 Wininger & Selby, Inc., 10 Rockefeller Plaza, New York 20, N. Y. (B)
 Wintz, Frank L., & Son, 1618 N. 27th St., Philadelphia 21, Pa. (B)
 Zellfelder, Albert, & Co., Inc., 1618 Wood St., Philadelphia 3, Pa. (B)

(e) CONTRACTORS ASSOCIATION OF PHILADELPHIA AND EASTERN PENNSYLVANIA

President—Austin Meehan, John Meehan & Son, 916 W. Dakota St., Philadelphia 33, Pa.

Secretary—H. A. Windisch, 1045 Suburban Sta. Bldg., Philadelphia 3, Pa.
Telephone: Rittenhouse 6-2424 & 6-1928

Armour Excavating, Inc., 7921 Oxford Ave., Philadelphia 11, Pa. (H-Hvy)
 Asphalt Paving & Supply Co., Box 57, Norristown, Pa. (H-Hvy)
 Bokser, Lewis, 5108 N. 10th St., Philadelphia 41, Pa. (H-Hvy)
 Bucks County Constr. Co., Inc., South Langhorne, Pa. (H-Hvy)
 Butler, Leo, Co., The, 9217 51st Ave., Box 97, College Park, Md. (H-Hvy)
 C & T Constr. Co., Inc., 810 Haddon Ave., Collingswood 7, N. J. (H-Hvy)
 Canuso, F. A., & Son, 173 W. Roosevelt Blvd., Philadelphia 20, Pa. (H-Hvy)
 Conduit & Foundation Corp., 770 S. Schuylkill Ave., Philadelphia 46, Pa. (H-Hvy)
 Coon, B. G., Constr. Co., 278 Union St., Luzerne, Pa. (H-Hvy)
 Counties Contr. & Constr. Co., 9th & Sedgley Ave., Philadelphia 40, Pa. (H-Hvy)
 DeFelice, L. G., & Son, Inc., Nettleton Ave., North Haven, Conn. (H-Hvy)
 DePolo, Angelo, 512 E. Walnut Lane, Philadelphia 44, Pa. (H-Hvy)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

PENNSYLVANIA—Continued

D'Angelo Bros., Inc., 68 E. Brighthurst St., Philadelphia 44, Pa. (H-Hvy)
 DiAngelo, Alfred, 2226 Reed St., Philadelphia 46, Pa. (H-Hvy)
 Dravo Corp., Neville Island, Pittsburgh 25, Pa. (H-Hvy)
 Driscoll, Jas. N., Co., 1121 Frankford Ave., Philadelphia 25, Pa. (H-Hvy)
 Ellis, A. J., Constr. Co., 4th & Courtland Sts., Philadelphia 40, Pa. (H-Hvy)
 Erb, Harry, Co., Inc., 29 Bala Ave., Bala, Pa. (H-Hvy)
 Faulkner, Thos. W., Jr., P. O. Box 95, Norristown, Pa. (H-Hvy)
 General Asphalt Paving Co., Glenview Rd. & Rising Sun Ave., Philadelphia 11, Pa. (H-Hvy)
 Glasgow, Samuel, Church & Waverly Rds., Glenside, Pa. (H-Hvy)
 Golder Constr. Co., Inc., Market St. National Bank Bldg., Philadelphia 7, Pa. (H-Hvy)
 Groves, S. J., & Sons Co., Inc., Box 151, Portland, Pa. (H-Hvy)
 Halloran, Harry, & Co., 770 S. Schuylkill Ave., Philadelphia 46, Pa. (H-Hvy)
 Herzog, Jos., 1228 69th Ave., Philadelphia 26, Pa. (H-Hvy)
 Kaufman Constr. Co., 4000 Pulaski Ave., Philadelphia 40, Pa. (H-Hvy)
 Kauffman Bros., P. O. Box 146, Langhorne, Pa. (H-Hvy)
 Kelly Paving Co., 1347 E. High St., Philadelphia 38, Pa. (H-Hvy)
 Kiewit, Peter, Sons' Co. & Bates & Rogers Constr. Corp., 59th St. & Grays Ave., Philadelphia 43, Pa. (H-Hvy)
 Leva, Adam, 145 W. Fern St., Philadelphia 20, Pa. (H-Hvy)
 Leva Bros., 5416 Rising Sun Ave., Philadelphia 20, Pa. (H-Hvy)
 Leva, Furey, 6521 N. 4th St., Philadelphia 26, Pa. (H-Hvy)
 Lombardi, Robt., Inc., 1118 Widener Bldg., Philadelphia 7, Pa. (H-Hvy)
 Mack Paving & Constr. Co., Luzerne & C Sts., Philadelphia 24, Pa. (H-Hvy)
 Mark, Frank, Contr. Co., N. & Wingohocking Sts., Philadelphia 24, Pa. (H-Hvy)
 McGraw, Jas., Co., 1010 Commercial Trust Bldg., Philadelphia 2, Pa. (H-Hvy)
 McHugh, M. & J. B., 890 N. Markoe St., Philadelphia 39, Pa. (H-Hvy)
 Meehan, John, & Son, 916 W. Dakota St., Philadelphia 33, Pa. (H-Hvy)
 Morrissey, J. D., Inc., 9119 Frankford Ave., Philadelphia 14, Pa. (H-Hvy)
 Nolen, Jas. F., & Sons, 364 E. Penn St., Philadelphia 44, Pa. (H-Hvy)
 Oxford Constr. Co., 173 W. Roosevelt Blvd., Philadelphia 20, Pa. (H-Hvy)
 Pilot, Lawrence E., P. R. R. 30th St. Sta., Philadelphia 3, Pa. (H-Hvy)
 Pontarelli & Sons, 7501 Whitaker Ave., Philadelphia 11, Pa. (H-Hvy)
 Progressive Bldrs., Inc., Crescent Blvd. & Norwood Ave., Pennsauken, N. J. (H-Hvy)
 Reilly, Thos. A., Co., 12 Reaney St., Chester, Pa. (H-Hvy)
 Shaner, W. G., & Sons, 2029 N. 62d St., Philadelphia 31, Pa. (H-Hvy)

Slaw-Landis Paving Co., Rockhill Rd., Cynwyd, Pa. (H-Hvy)
 Spinosa, C. & C., Co., 2-4 N. Jerome St., Allentown, Pa. (H-Hvy)
 Square Constr. Co., 115 S. Haven St., Baltimore 21, Md. (H-Hvy)
 State Paving & Constr. Co., 1924 Arch St., Philadelphia 3, Pa. (H-Hvy)
 Talbott-Myers Constr. Corp., 30 Wall St., P. O. Box 231, Winchester, Ky. (H-Hvy)
 Thompson Constr. Corp., The, 425 Delaware Ave., Camden 2, N. Y. (H-Hvy)
 Tri-County Constrs., Elkins Park, Philadelphia 17, Pa. (H-Hvy)
 Union Paving Co., 1227 N. Broad St., Philadelphia 22, Pa. (H-Hvy)
 Vallone, Domenic, 2125 S. Woodstock St., Philadelphia 45, Pa. (H-Hvy)
 Vore Bros., 2550 Haverford Ave., Ardmore, Pa. (H-Hvy)
 Ventresca, Ernest, & Son, 5600 Bingham St., Philadelphia 20, Pa. (H-Hvy)
 Worthington, Howard, Box 95, Line Lexington, Pa. (H-Hvy)

38. RHODE ISLAND

(a) RHODE ISLAND CHAPTER

President—Merton Soule, Henry M. Soule Co., 421 Walcott St., Pawtucket, R. I.
Executive Secretary—Wm. J. Sheehan, 540 Hospital Trust Bldg., Providence 3, R. I.
 Ahlberg, O., & Sons, Inc., 48 Molter St., Cranston, R. I. (B)
 Argentieri Constr. Co., 54 Custom House St., Providence 3, R. I. (B)
 Ayers-Hagan-Booth, Inc., 35 Westminster St., Providence 3, R. I. (B)
 Beals, A. C., Co., 63 Bassett St., Providence 3, R. I. (B)
 Bowerman Bros., 70 Bath St., Providence 3, R. I. (B)
 Brien Bldg. Co., Inc., 144 Court Sq., Woonsocket, R. I. (B)
 Central Engr. & Constr. Co., 155 Main St., Pawtucket, R. I. (B-Hvy)
 Coleman Constr. Co., Inc., 49 Westminster St., Providence 3, R. I. (B)
 Collins, H. V., 7 Dyer St., Providence 3, R. I. (B)
 Dimeo Constr. Co., 75 Westminster St., Providence 3, R. I. (B)
 Flynn, Jos. P., 26 Custom House St., Providence 7, R. I. (B)
 Gilbane Bldg. Co., 90 Calverly St., Providence, R. I. (B-Hvy)
 Gustafson, Frank N., & Sons, Inc., 251 Pitman St., Providence 6, R. I. (B)
 Hope Bldg. Co., Inc., Box 358, Providence 3, R. I. (B)
 Marshall, J. L., & Sons, Inc., 560 York Ave., Pawtucket, R. I. (B)
 Molony & Rubien Constr. Co., 66 Wickenden St., Providence, R. I. (B)
 Purington, O. D., Co., Inc., 171 Westminster St., Providence, R. I. (B)
 Rowley Constr. Co., 260 Central Ave., Pawtucket, R. I. (B)
 Sinclair, John M., 44 Burlington St., Providence 6, R. I. (B)

Smiley, A. F., Constr., Co., 115 Trenton St., Pawtucket, R. I. (B)
 Soule, Henry M., Co., 421 Walcott St., Pawtucket, R. I. (B)
 Turgeon, E., Constr. Co., Inc., 42 Weybosset St., Providence 3, R. I. (B)

39. SOUTH CAROLINA

See Carolina Branch (page 347)

40. SOUTH DAKOTA

(a) HIGHWAY CONSTRUCTION INDUSTRY OF SOUTH DAKOTA, INC.

President—C. D. Bartholow, W. E. Bartholow & Son Constr. Co., Highway 14 E., P. O. Box 3, Huron, S. Dak.
Secretary—W. S. Hannan, Sr., Hyde Block, P. O. Box 467, Pierre, S. Dak. Telephone: 2994
 Alexander Constr. Co., 4641 Hiawatha Ave., Minneapolis 6, Minn. (H)
 Bartholow, W. E., & Son Constr. Co., Highway 14 E., P. O. Box 3, Huron, S. Dak. (H)
 Beckman, J. H., Constr. Co., 1620 Dana Dr., Sioux Falls, S. Dak. (H)
 Bonesteel & Hyde, Box 132, Pierre, S. Dak. (H)
 Bradbury, P. A., Constr. Co., Box 636, Aberdeen, S. Dak. (H)
 Chase Constr. Co., 1104 Farlow Ave., P. O. Box 9, Rapid City, S. Dak. (H)
 Christle, Richard H., Box 94, Wasta, S. Dak. (H)
 Craig, Jay W., Co., 1814 N. E. California St., Minneapolis 13, Minn. (H)
 Creager Bros. Constr. Co., 606 E. Dakota Ave., Pierre, S. Dak. (H)
 Cummins, F. L., Constr. Co., 2101 S. Norton Ave., Sioux Falls, S. Dak. (H-Hvy)
 England & Roth Constr. Co., 909 St. Francis St., P. O. Box 490, Rapid City, S. Dak. (H-Hvy)
 Estervig, H., Box 402, Huron, S. Dak. (H)
 Gustafson, Dave & Co., Inc., 502 E. 6th St., Sioux Falls, S. Dak. (H)
 Gustafson, S. E., Constr. Co., W. 12th St., Box 453, Sioux Falls, S. Dak. (H)
 Haggart Constr. Co., The, Box 1310, Fargo, N. Dak. (H)
 Harris Constr. Co., Box 348, Faulkton, S. Dak. (H-RR)
 Healy, J. L., Constr. Co., 301 Western Surety Bldg., Sioux Falls, S. Dak. (H)
 Inland Constr. Co., Rt. 1, Rapid City, S. Dak. (H-Hvy-RR)
 Johnson, H. W., Dakota Ave., So., P. O. Box 218, South Sioux City, Nebr. (H)
 Kiewit, Peter, Sons' Co., North Western Warehouse Bldg., 413 6th St., Rapid City, S. Dak. (B-H-Hvy-RR)
 Kost, Leo, 109 N. Adams St., Pierre, S. Dak. (H)
 Lien C. H., Constr. Co., Inc., Box 1807, Rapid City, S. Dak. (H)
 Lindekugel, G. H., & Sons, Mitchell Air Base, Mitchell, S. Dak. (H)
 McCree & Co., 918 New York Bldg., St. Paul 1, Minn. (H)

A.G.C. DIRECTORY

SOUTH DAKOTA—Continued

Moore Constr. Co., 911 Clark St., Rapid City, S. Dak. (H)
 Noel, W. H., Co., Box 1390, Jamestown, N. Dak. (H)
 Northern Improvement Co., 633 1st Ave., No., Box 489, Fargo, N. Dak. (H-Hvy)
 Northwestern Engr. Co., 1311 St. Joe St., Box 1392, Rapid City, S. Dak. (H-Hvy)
 Oberg, Steve R., Constr. Co., 1224 E. Rice St., Sioux Falls, S. Dak. (H)
 Parker, W. J., Constr. Co., 614 Standard Oil Bldg., Omaha 2, Nebr. (H)
 Pasco Constr. Co., 1707 S. 1st Ave., Sioux Falls, S. Dak. (H)
 Rand Constr. Co., Box 1529, Rapid City, S. Dak. (B-H)
 Richardson, Lou, Box 335, Miles City, Mont. (H)
 Rounds Constr. Co., 1110 Main St., Rapid City, S. Dak. (H)
 Schimkat, Art, Constr., P. O. Box 61, Onida, S. Dak. (H)
 Schnuerle, A. W., Riverside Rd., Box 634, Aberdeen, S. Dak. (H)
 Stapp, Floyd D., Constr. Co., Box 1211, Rapid City, S. Dak. (H)
 Stump & Stradinger, P. O. Box 448, Mo-bridge, S. Dak. (H)
 Summit Constr. Co., P. O. Box 1609, Rapid City, S. Dak. (H)
 Sweetman Constr. Co., 230 E. 8th St., Sioux Falls, S. Dak. (H-Hvy)
 Tennesof Constr. Co., 1205 S. 9th St., Box 1363, Fargo, N. Dak. (H)
 Western Contracting Corporation, 400 Benson Bldg., Sioux City 15, Iowa (H-Hvy-RR)

Local Members

Brezina Construction Company, Inc., P. O. Box 743, Rapid City, S. Dak. (B)
 Carlson, Henry, Company, Sioux Falls, S. Dak. (B)
 Kyburz Construction Company, 224 Midwest Bldg., Aberdeen, S. Dak. (B)
 Sioux Falls Construction Company 800-810 S. 7th Ave., Sioux Falls, S. Dak. (B-Hvy-RR)

41. TENNESSEE

MISSISSIPPI VALLEY FLOOD CONTROL BRANCH

See Mississippi (page 338)

(a) CHATTANOOGA CHAPTER

President—Lee A. Warlick, L. A. Warlick Contr. Co., 747 E. 11th St., Chattanooga, Tenn.
Counsel—Jere T. Tipton, 1033 Volunteer State Life Bldg., Chattanooga, Tenn.
Telephone: 7-1191

Allen, Robt. L., 406 Forrest Ave., Chattanooga, Tenn. (B-H)
 Brown Bros., P. O. Box 946, Chattanooga 1, Tenn. (H-Hvy)

Brown, Dave L., 1800 Central Ave., Chattanooga, Tenn. (H-Hvy)
 Collins & Hobbs, 4013 Tennessee Ave., Chattanooga, Tenn. (B)
 Davis, O. B., Constr. Co., 641 N. Market St., Chattanooga, Tenn. (B)
 Dotson, John R., Co., 1104 Sewanee Dr., Chattanooga 11, Tenn. (B)
 Hamby Constr. Co., Inc., E. Washington St., Box 426, Athens, Tenn. (B)
 Lindsey, J. W. B., Co., 401 N. Market St., Chattanooga, Tenn. (B)
 Long, W. P., Constr. Co., 23 Waheela Rd., Chattanooga, Tenn. (B)
 Martin, John, Co., Inc., 610 W. Manning St., Chattanooga, Tenn. (B)
 Parks, John, Co., 505 Georgia Ave., Chattanooga, Tenn. (B)
 Parks, T. U., Co., 1700 Kirby Ave., Chattanooga, Tenn. (B)
 Payne & Harris, 1077 Duncan Ave., Chattanooga, Tenn. (B-H-Hvy)
 Pioneer Constr. Co., 1300 Oak St., Chattanooga, Tenn. (H-Hvy)
 Stein Constr. Co., 1077 Duncan Ave., Chattanooga, Tenn. (Hvy)
 Verhey Constr. Co., 207 N. Holly St., P. O. Box 306, Chattanooga, Tenn. (B)
 Warlick, L. A., Contr. Co., 747 E. 11th St., Chattanooga, Tenn. (B)
 Wilson, Mark K., Co., 43 Chamberlain Bldg., Chattanooga, Tenn. (B-H)
 Wise, E. D., 1077 Duncan Ave., Chattanooga, Tenn. (H-Hvy)

(b) KNOXVILLE CHAPTER

President—J. E. Willard, Johnson & Willard, P. O. Box 174, Knoxville 2, Tenn.
Executive Secretary—J. A. McAfee, P. O. Box 2047, Knoxville, Tenn.

Baskerville Bldrs., 1650 Island Home Ave., P. O. Box 1109, Knoxville, Tenn. (B)
 Daugherty & Waters, P. O. Box 97, Knoxville 1, Tenn. (B)
 Dunn, J. M., & Son, 245 Broadway, Knoxville 17, Tenn. (B)
 Emory & Richards, Central & Quincy, Knoxville 17, Tenn. (B)
 Foster & Creighton Co., 1500 W. Oldham Ave., P. O. Box 2366, Knoxville, Tenn. (B)
 Hicks, Fred E., Constr. Co., 205 Flatiron Bldg., Knoxville 17, Tenn. (B)
 Hobson, Chas., Co., Inc., 2923 Sutherland Ave., Knoxville, Tenn. (B)
 Johnson & Willard, P. O. Box 174, Knoxville 2, Tenn. (B)
 McMurray, A. R., Constr. Co., 1418 Western Ave., Knoxville, Tenn. (B)
 Nicholson, V. L., Co., Box 2386, Knoxville 12, Tenn. (B)
 Roehl Constr. Co., 625 Atchley St., Knoxville, Tenn. (B)
 Weiss, R. L., & Son, W. Highland Dr., Fountain City, Tenn. (B)

Alamo Constr. Co., Alamo, Tenn. (B-H)
 Bryson & Ward, 2419 Chelsea Ave., Memphis 8, Tenn. (B)
 Canfield, Badgett & Scarbrough Co., 1850 Union Ave., Apt. #2, Memphis 3, Tenn. (B)
 Cassidy, John, Constr. Co., 801 Roland, Memphis, Tenn. (B)
 Clark & Fay, 4920 Poplar Ave., Memphis, Tenn. (B)
 Clifton, B. C., Co., 166 Monroe, Memphis, Tenn. (B)
 Consolidated Contrs., 1489 Thomas St., P. O. Box 237, Memphis 1, Tenn. (B-H-Hvy)
 Creson, R. F., & Co., 741 S. Cox St., Memphis 4, Tenn. (B)
 Crouch, Robt. C., & Co., Sterick Bldg., Memphis 4, Tenn. (B)
 Dougherty-Liddell Constr. Co., P. O. Box 2839, DeSoto Sta., Memphis 2, Tenn. (B-Hvy)
 Dunn-Baskin & Dunn, 166 Monroe Ave., Memphis, Tenn. (B)
 Fulghum, Geo. A., & Co., 1045 Galloway, Memphis, Tenn. (B)
 Gien, Seth E., & Assocs., 801 Roland, Memphis 3, Tenn. (B)
 Irwin, Robt. L., 166 Monroe Ave., Memphis, Tenn. (B)
 Jameson, P. W., Constr. Co., 611 N. Holmes Ave., Memphis, Tenn. (B)
 L & M Constr. Co., P. O. Box 78, Memphis, Tenn. (B-H)
 Lee Constr. Co., 402 Goodwyn Institute, Memphis, Tenn. (B)
 Lee, Frank H., & Co., 217 Bond St., West Memphis, Ark. (B)
 Madewell Constr. Co., 312 Baltimore Bldg., Memphis, Tenn. (B)
 Maury, Sam P., Constr. Co., P. O. Box 231, Memphis 1, Tenn. (B)
 Maury & Wedaman, 2489 Parkway Pl., Memphis, Tenn. (B)
 McCrory, C. E., Constr. Co., 130 Neil St., Memphis, Tenn. (B)
 McGuire, H. A., Constr. Co., 413 Monroe Ave., Memphis 3, Tenn. (B)
 Meers, E. W. G., Constr. Co., 166 Monroe Ave., Memphis 3, Tenn. (B)
 Mississippi Valley Engr. & Constr. Co., 787 S. Willett, Memphis, Tenn. (B-Hvy)
 Mock, P. C., Constr. Co., 725 Scott Ave., Memphis, Tenn. (B)
 Morgan, B. A., 2197 Central Ave., Memphis, Tenn. (B)
 O'Brien & Padgett, 283 Scott, Memphis, Tenn. (B)
 Owen, Jas. G., Jr., Rm. 214, 1503 Union Ave., Memphis, Tenn. (B)
 Powell, L. D., Constr. Co., 2857 Summer Ave., Memphis, Tenn. (B-Hvy)

(c) MEMPHIS CHAPTER

President—John Cassidy, Seth E. Gien & Assocs., 801 Roland, Memphis 3, Tenn.

Secretary-Manager—W. W. MacLaughlin, Jr., 320 S. Dudley, Memphis, Tenn.

Telephone: 32-1721

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

TENNESSEE—Continued

S & W Constr. Co., 2630 Midland, Memphis, Tenn. (B-H-Hvy)
 Sharpe, W. L., Contr. Co., 2074 York Ave., Memphis, Tenn. (H-Hvy-RR)
 Tri-State Constr. Co., 1303 Three Sisters Bldg., Memphis 3, Tenn. (B)
 Turner Constr. Co., 688 Scott, Memphis, Tenn. (B)
 Tvedt, L. A., 10 N. Main Bldg., Memphis, Tenn. (B-H-Hvy)
 United Constr. Co., 727 N. Parkway, Memphis, Tenn. (B)
 Wessell Constr. Co., 388 N. Front St., Memphis 7, Tenn. (B)
 Young, Fred, 166 Monroe Ave., Memphis, Tenn. (B)

(d) NASHVILLE CHAPTER

President—Lewis M. Steele, W. L. Hailey & Co., 314 42d Ave., No., Nashville 3, Tenn.
Secretary—R. L. Alexander, 624 Stahlman Bldg., Nashville 3, Tenn.
Telephone: 6-1177
 Boone Contr. Co., 540 3d National Bank Bldg., Nashville 3, Tenn. (B)
 Del Favero, Albert, 510 39th Ave., No., Nashville 9, Tenn. (B)
 Foster & Creighton Co., American National Bank Bldg., Nashville 3, Tenn. (B-H)
 Hailey, W. L., & Co., 314 42d Ave., No., Nashville 3, Tenn. (B-H-Hvy-RR)
 Kelly, J. A., Co., 1419 Church St., Nashville 3, Tenn. (B)
 Regen, J. B., 2221 Bransford Ave., Nashville 4, Tenn. (B)
 Rock City Constr. Co., 135 4th Ave., No., Nashville 3, Tenn. (B)
 Rule, C. F., Constr. Co., 217 13th Ave., No., Nashville, Tenn. (B)
 Sumner Constr. Co., 912 8th Ave., So., Nashville 3, Tenn. (B)
 Wright, Fred, Constr. Co., 316 12th Ave., So., Nashville 4, Tenn. (B)

(e) TRI-CITIES CHAPTER

President—Reno Burleson, Burleson Constr. Co., P. O. Box 132, Johnson City, Tenn.
Secretary—F. B. Porter, Rentenbach & Wright, Inc., P. O. Box 411, 217 E. Sullivan St., Kingsport, Tenn.
 Alley Constr. Co., Inc., Union Trust Bldg., Bristol, Tenn. (B-H)
 Armstrong Constr. Co., 151 Shelby St., Kingsport, Tenn. (B)
 Bays Mountain Constr. Co., Box 511, Kingsport, Tenn. (B-Hvy)
 Burleson Constr. Co., 812 W. Walnut St., P. O. Box 132, Johnson City, Tenn. (B)
 Cassel Bros., 908 Bristol Hwy., Kingsport, Tenn. (B)
 Click Constr. Co., 118 Elk Ave., Elizabethton, Tenn. (B)
 Green, Jas. E., P. O. Box 427, Johnson City, Tenn. (B)
 Harvey, J. E., 914 E. 8th Ave., Johnson City, Tenn. (B)
 Henninger, Claude, Co., P. O. Box 79, Bristol, Tenn. (B)

Johnson & Willard, 422 Front St., P. O. Box 174, Knoxville, Tenn. (B)
 Kingsolver, Arthur E., P. O. Box 894, Bristol, Va. (B)
 Myers, J. E., 218 E. Charlemont St., Kingsport, Tenn. (B)
 Rentenbach & Wright, Inc., P. O. Box 411, 217 E. Sullivan St., Kingsport, Tenn. (B)
 Sproles, W. R., Constr. Co., Clay St., Kingsport, Tenn. (B)
 Steadman Constr. Co., 147 Commerce St., Kingsport, Tenn. (B)
 Taylor Constr. Co., Inc., P. O. Box 237, Johnson City, Tenn. (H-Hvy)
 Wayne Constr. Co., Inc., Rt. 4, Greeneville Hwy., Kingsport, Tenn. (B)

42. TEXAS

(a) DALLAS CHAPTER

President—Chas. A. Vilbig, Vilbig Bros., Inc., P. O. Box 5930, Dallas 2, Texas
Managing Director—Julian Capers, Jr., 207 Thomas Bldg., Dallas 2, Texas
Telephone: Randolph 8218
 Bateson, J. W., Co., Inc., 1102 Irwin-Keasler Bldg., Dallas, Texas (B)
 Beck, Henry C., Co., 607 1st National Bank Bldg., Dallas 2, Texas (B)
 Bock Constr. Co., Inc., 2630 Ferris St., P. O. Box 9097, Dallas 15, Texas (B)
 Boyd, J. O., Constr. Co., 2401 Pittman Ave., Box 1343, Dallas, Texas (B)
 Brennan, Thos. P., Inc., 2231 Butler St., Dallas, Texas (B)
 Buckner & Pittman, 3121 N. Harwood St., P. O. Box 923, Dallas, Texas (B)
 Busboom & Rauh, 6910 Forest Park Rd., Dallas 9, Texas (B)
 Carpenter Bros., 1335 Plowman, Dallas 8, Texas (B)
 Connell Constr. Co., 2110 Hawes, Dallas, Texas (B)
 Cowdin Bros., 411 S. Haskell Ave., Dallas 1, Texas (B)
 Dolph Constr. Co., Inc., 3901 Elm St., Dallas 1, Texas (B)
 Dyer, Hal C., Lone Star Gas Bldg., Jackson St. Unit, Dallas 1, Texas (B)
 Eckert-Fair Constr. Co., 1307 National City Bank Bldg., Dallas 1, Texas (B)
 Fuess, C. A., & Co., 30½ Highland Park Shopping Village, Dallas 5, Texas (B)
 Hickey & Co., 204 Commerce Bldg., Dallas 2, Texas (B)
 Inge-Hayman Constr. Co., Inc., 2115 Butler St., Dallas, Texas (B)
 Inwood Constr. Co., 507 Trinity Universal Bldg., Ross Ave. & Harwood St., Dallas, Texas (B)
 Jones, J. Lawrence, 406 W. Clarendon Dr., Dallas 8, Texas (B)
 McKee, Robt. E., Box 2848, Dallas 1, Texas (B)
 Meers Constr. Co., 312 Great National Life Bldg., Dallas 1, Texas (B)
 Miller & Norton, 4415½ Belmont, P. O. Box 4667, Dallas 6, Texas (B)
 Morgan, J. E., & Sons, P. O. Box 6029, Dallas, Texas (B)
 Munn, Chas. S., 5319 Junius St., P. O. Box 9566, Dallas 14, Texas (B)

O'Rourke Constr. Co., 1001 W. Commerce, P. O. Box 5384, Dallas 2, Texas (B)
 Peterson Constr. Co., P. O. Box 474, Dallas, Texas (B)
 Ransdell Constr. Co., 1007 National City Bank Bldg., Dallas, Texas (B-Hvy)
 Rife, A. J., Constr. Co., 2608 Inwood Rd., Dallas, Texas (B)
 Roland Constr. Co., 4425 Greenville Ave., Dallas 6, Texas (B)
 Stewart, James, Co., 306 Employers Insurance Bldg., Dallas 2, Texas (B)
 Sumner, Chas. V., 3408 Rankin St., Dallas 5, Texas (B)
 Turner & La Roe, P. O. Box 62, Terrell, Texas (B)
 Vilbig Bros., Inc., P. O. Box 5930, Dallas 2, Texas (B)
 Vivrett & Vivrett, P. O. Box 6286, Dallas Texas (B)
 Wallace, W. H., Constr. Co., 2330 Hardwick St., Dallas 11, Texas (B)

(b) EL PASO CHAPTER

President—J. Francis Morgan, J. E. Morgan & Sons, P. O. Box 721, 210 N. Campbell St., El Paso, Texas
Secretary—K. W. Braxton, 610 Bassett Tower, El Paso, Texas
 American Constr. Co., 200 N. Copia, P. O. Box 1923, El Paso, Texas (B)
 Bagwell, C. R., 2910 Byron St., El Paso, Texas (B)
 Banes Co., Inc., The, 1710 Bassett Ave., P. O. Box 3245, El Paso, Texas (B)
 Leavell, C. H., & Co., 1900 Wyoming St., El Paso, Texas (B)
 Lowman, R. D., 1617 E. Missouri St., El Paso, Texas (B)
 McKee, Robt. E., Gen. Contr., Inc., 1918 Texas St., P. O. Drawer 562, El Paso, Texas (B-H-Hvy-RR)
 Morgan, J. E., & Sons, 210 N. Campbell St., P. O. Box 721, El Paso, Texas (B)
 Ponder, Dan R., Inc., P. O. Box 344, 422 El Paso National Bldg., El Paso, Texas (B)
 Ponsford Bros., P. O. Box 1412, El Paso, Texas (B)
 Prati & Prati, 5660 El Paso Dr., El Paso, Texas (B)

(c) FORT WORTH CHAPTER

President—J. R. Murphy, 2414 Cypress, Fort Worth, Texas
Manager—R. B. Dunbar, 511 Neil P. Anderson Bldg., Fort Worth, Texas
Telephone: EDison-7688
 Adams, B. B., 716 1st National Bank Bldg., Fort Worth 2, Texas (B)
 Butcher & Sweeney Constr. Co., 806½ Taylor St., Fort Worth 2, Texas (B)
 Byrne, Thos. S., Inc., Fort Worth National Bank Bldg., Fort Worth, Texas (B)
 Cadenhead & Rosser, 4776 Trail Lake Dr., Fort Worth, Texas (B)
 Cain & Cain, 406 Majestic Bldg., Fort Worth 2, Texas (B)
 Childs Constr. Co., 2716 E. Lancaster, Fort Worth, Texas (B)
 Cloer, E. E., Fortune Arms Apts., P. O. Box 9278, Fort Worth, Texas (B)

A.G.C. DIRECTORY

TEXAS—Continued

Duncan, Horace O., 2917 Bryan, Fort Worth, Texas (B)
 Friedman Constr. Co., 1510 W. 10th St., Fort Worth 3, Texas (B)
 Hall, J. W., Constr. Co., 4014 White Settlement Rd., Fort Worth, Texas (B)
 Harms, W. C., 1228 W. Shaw St., Fort Worth, Texas (B)
 Lewis & Lewis, P. O. Box 11207, 3800 University Dr., Fort Worth, Texas (B)
 Lytle, W. F., Sr., 7400 Arlie, Fort Worth, Texas (B)
 McCann Constr. Co., 1813 E. Lancaster, P. O. Box 2079, Fort Worth 1, Texas (B)
 McIntire, F. B., Constr. Co., 5611 E. Lancaster, Fort Worth, Texas (B)
 McQuaid Constr. Co., 2912 Stanley, P. O. Box 11066, Fort Worth, Texas (B)
 Mitchell Constr. Co., 508 Neil P. Anderson Bldg., Fort Worth, Texas (B)
 Murphy, J. R., 2414 Cypress, Fort Worth, Texas (B)
 Padgett, John W., & Sons, 4359 W. Vickery, P. O. Box 9277, Fort Worth, Texas (B)
 Paschall-Sanders Constr. Co., 3602 Linden, Fort Worth 7, Texas (B)
 Pihler Constr. Co., 213 University Dr., Fort Worth, Texas (B)
 Potter, John W., 1401 W. Lancaster, Fort Worth, Texas (B)
 Quisile Constr. Co., 417 T & P Passenger Station Bldg., Fort Worth 2, Texas (B)
 Rambo Constr. Co., 1618 Rogers Rd., P. O. Box 11245, Fort Worth, Texas (B)
 Ratcliff Constr. Co., 710 Page St., Fort Worth, Texas (B)
 Rhodes, Jon K., Constr. Co., 3401 W. Rose-dale, P. O. Box 9116, Fort Worth, Texas (B)
 Roden Constr. Co., 3617 Collingwood, P. O. Box 9816, Fort Worth, Texas (B)
 Seward & Shurtleff, 736 Coates Dr., P. O. Box 10308, Fort Worth, Texas (B)
 Smith, Albert L., 1109 Currie, Fort Worth 7, Texas (B)
 Taylor, Jas. T., & Son, Inc., 117 Roberts Cut-Off Rd., P. O. Box 225, Fort Worth, Texas (B)

(d) HOUSTON CHAPTER

President—Demmie H. Cox, Texas-Gulf Constr. Co., Inc., 2008 S. Wayside Dr., P. O. Box 661, Houston 1, Texas

Executive Secretary—Loy W. Duddleston, P. O. Box 662, Houston 1, Texas

Telephone: Charter 6051

Allen, O. L., Co., 1922 Wentworth Ave., Houston 4, Texas (B)
 Andrews-Parker, Inc., P. O. Box 927, Bryan, Texas (B-Hvy)
 Atlantic Constr. Co., P. O. Box 14098, Houston 21, Texas (B)
 Audish, I. G., Constr. Co., P. O. Box 12264, Houston 17, Texas (B)
 Ball, R. F., Constr. Co., Inc., Box 13097, Houston 19, Texas (B)
 Bate, Thos., & Sons, Inc., 1107 Girard St., Houston 10, Texas (B)

Baxter Constr. Co., 1404 Dunlavy St., Houston 19, Texas (B)
 Bellows, W. S., Constr. Corp., P. O. Box 2132, 716 N. Everton St., Houston 1, Texas (B-Hvy)
 Benson Co., The, 2212 Waugh Dr., Houston 6, Texas (B)
 Bertelsen Constr. Co., 2411 Bissonnet Ave., Houston 5, Texas (B)
 Blaw-Knox Constr. Co., Chemical Plants Div., P. O. Box 778, Pittsburgh 30, Pa. (B-Hvy)
 Bond, E. Lee, Contr., Inc., 3131 University Blvd., Houston 5, Texas (B)
 Bouffle Constr. Co., P. O. Box 7703, Houston 7, Texas (B)
 Brown Constr. Co., 5105 Avenue L, Houston 11, Texas (B)
 Burton & Clithero, 6302 Cochran St., Houston 22, Texas (B-Hvy)
 Butler, R. B., Inc., Box 471, Bryan, Texas (B-H)
 Campbell & Kay, P. O. Box 836, Tyler, Texas (B-H)
 Candoo Constr. Co., Inc., P. O. Box 14226, Houston 21, Texas (B)
 Carpenter Constr. Co., 5330 Mandell St., Houston 5, Texas (Hvy-RR)
 Chambers Constr. Co., 1954 Temple Dr., Houston 19, Texas (B)
 Copeland Constr. Co., P. O. Box 122, Bel-laire, Texas (B)
 Crossin Contr. Co., 2009 Fannin St., Houston 2, Texas (B)
 Crowder, J. W., Constr. Co., Inc., 8008 Howard Dr., Houston 17, Texas (B)
 Davis, Felix A., Constr. Co., 507 Harrington St., Houston 9, Texas (B)
 Dow Acres, Rt. 9, Box 681, Houston 3, Texas (B)
 Evans, A. N., P. O. Box 546, Columbus, Texas (B)
 Farnsworth & Chambers Co., Inc., P. O. Box 74, Houston 1, Texas (B-H-Hvy-RR)
 Ferguson, H. K., Co., The, 2620 S. Main St., Houston 2, Texas (B)
 Fisher Constr. Co., P. O. Box 6325, Houston 6, Texas (B)
 Flanders Constr. Co., P. O. Box 12188, Houston 17, Texas (B)
 Fretz Constr. Co., P. O. Box 18094, Houston 23, Texas (B-Hvy)
 George, Frank M., Inc., 3120 Dixie Dr., Houston, Texas (B)
 Gunit Concrete & Constr. Co., 2036 Addison St., Houston 5, Texas (Hvy)
 Harbeson, W. B., Inc., 227 N. Lenox St., Houston 11, Texas (B)
 Hays, A. L., & Son, 7205 Capitol Ave., Houston 11, Texas (B)
 Heard, J. N., 1310 McKinney Ave., Houston, Texas (B)
 Hill, W. D., Constr. Co., Box 6023, Houston 6, Texas (B)
 Holtz, B. W., 1318 Sul Ross, Houston 6, Texas (B)
 Howard Constr. Co., Inc., 442 N. Hutcheson St., Houston 3, Texas (B)
 Howe, T. D., Constr. Co., Inc., P. O. Box 19027, Houston 24, Texas (B)

Hubbard Constr. Co., Inc., 1507 Delano St., Houston 3, Texas (B)
 Hubbell, J. T., Constr. Co., P. O. Box 14128, Houston 21, Texas (B)
 Hydrocarbon Research, Inc., 115 Broadway, New York 6, N. Y. (Hvy)
 Kidde, Walter, Constr., Inc., P. O. Box 8044, Houston 4, Texas (B)
 Knutson Constr. Co., 3803 S. Main St., Houston 2, Texas (B)
 Lake Constr. Co., P. O. Box 696, Eagle Lake, Texas (B)
 LeBlanc, Inc., P. O. Box 351, Houston 1, Texas (B)
 Leftwich, Stenis & Harris, 524 N. Hutcheson St., Houston 3, Texas (B)
 Linbeck Constr. Corp., P. O. Box 13007, Houston 19, Texas (B)
 Lockhart, H. L., 203 Carson Ct., Houston 4, Texas (B)
 Lowry, E. G., Co., 5933 Kansas, Houston 7, Texas (B)
 Manhattan Construction Company of Texas, 2828 Pease Ave., Houston 3, Texas (B)
 Marco Constr. Co., 6714 Long Dr., Houston 17, Texas (B)
 Marshall Constr. Co., P. O. Box 7538, Houston 7, Texas (B)
 Martin, Bill, 1911 Avenue L, Galveston, Texas (B)
 Maxwell Constr. Co., P. O. Box 504, Bay-town, Texas (B)
 Meyerson, Albert, Co., P. O. Box 14005, Houston 21, Texas (B)
 Moore & Moore, P. O. Box 605, LaPorte, Texas (B)
 Mora, Gerald, P. O. Box 2623, Houston 1, Texas (Hvy)
 Nesmith, Robt. E., Inc., 6738 Long Dr., Houston 17, Texas (B)
 Nunez Constr. Co., Inc., P. O. Box 1112, Texas City, Texas (Hvy)
 Oliver, L. W., & Son, P. O. Box 840, Gal-veston, Texas (B)
 O'Rourke Constr. Co., 4011 Koehler St., P. O. Box 7557, Houston 7, Texas (B)
 Ottosen, R. W., Constr. Co., Inc., 3514 Pen-wood Way, Houston 23, Texas (B)
 Peck, W. D., & Co., Inc., 304 Citizens State Bank Bldg., Houston 2, Texas (B)
 Pence Constr. Corp., P. O. Box 226, Bel-laire, Texas (B)
 Pike, A. F., P. O. Box 5202, Houston 12, Texas (Hvy)
 Plank, J. C., 4700 Nett St., Houston 7, Texas (B)
 Roberts, Jas. A., 2014 Rosedale Ave., Hous-ton 4, Texas (B)
 Rose Constr., 917 W. Alabama Ave., Hous-ton 6, Texas (B)
 Schneider Constr. Co., P. O. Box 13157, Houston 19, Texas (B)
 Semands, Martin B., P. O. Box 979, Conroe, Texas (B)
 Smith, Robt. H., & Co., 1915 Kolfahl St., Houston 23, Texas (B)
 Smith, Wm. A., Constr. Co., P. O. Box 1631, Houston 1, Texas (RR)
 Southwestern Constr. Co., P. O. Box 1204, Houston 1, Texas (B-Hvy)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

TEXAS—Continued

Standard Contr. Co., Inc., P. O. Box 1550, Bay City, Texas (B-Hvy)
 Tellepsen Constr. Co., 1710 Telephone Rd., P. O. Box 2536, Houston 1, Texas (B-Hvy)
 Temple Assocs., P. O. Box 308, Diboll, Texas (B)
 Templeton, C. E., 2309 McClendon St., Houston 25, Texas (B)
 Texas-Gulf Constr. Co., Inc., 2008 S. Wayside Dr., P. O. Box 661, Houston 1, Texas (B-Hvy)
 Vaclavick Constr. Co., P. O. Box 386, El Campo, Texas (B)
 Van Buskirk, Harold, & Co., Inc., 3105 Dixie Dr., P. O. Box 14003, Houston 21, Texas (B)
 Van Cleve Constr. Co., P. O. Box 11277, 5616 Telephone Rd., Houston 17, Texas (B)
 Weber, Herman, Inc., 800 N. Pearl St., Beaumont, Texas (B)
 Williams Constr. Co., Inc., P. O. Box 9162, Houston 11, Texas (B)
 Windham & Sons, Inc., P. O. Box 789, Livingston, Texas (B)
 Wohlfeld Constr. Co., 6702 Cedar Springs Ave., P. O. Box 7084, Love Field Br., Dallas 9, Texas (B)
 Wood, Louis A., 602 E. 24th St., Houston 8, Texas (B)
 Woodruff, W. E., Co., 8562 Montridge Dr., Houston 10, Texas (B)
 Zempter, J. W., Contr. Co., Inc., P. O. Box 57, 6502 Broadway, Galveston, Texas (B)

(e) SAN ANTONIO CHAPTER

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 Browning, C. L., Jr., P. O. Box 5008, Beacon Hill Sta., San Antonio, Texas (B)
 Chamberlain & Strain, 607 National Bank of Commerce Bldg., San Antonio 5, Texas (B)
 Christy & Baskett, American Hospital & Life Bldg., San Antonio 5, Texas (B)
 Forgy Constr. Co., P. O. Box 6521, Alamo Hts. Br., San Antonio, Texas (B)
 Hill & Combs, 321 Melrose Pl., San Antonio 1, Texas (B-Hvy)
 Lynn & Morsey, 407 Ira Ave., P. O. Box 2546, San Antonio 6, Texas (B)
 Martin, J. B., 3310 S. Flores St., San Antonio 4, Texas (B)
 McKenzie Constr. Co., P. O. Box 806, San Antonio 6, Texas (B-Hvy)
 Mitchell, G. W., 811 American Hospital & Life Bldg., San Antonio 5, Texas (B)
 Phelps, Judson H., Rt. 2, Box 208-L, San Antonio, Texas (B)
 Prassel, Victor, P. O. Box 526, San Antonio 6, Texas (B-Hvy)
 Rheiner, A. E., & Co., 2304 Transit Tower, San Antonio, Texas (B)

Rheiner, D. J., Constr. Co., 409 Insurance Bldg., San Antonio, Texas (B)
 Scott, F. L., & Son, 2402 W. Kings Hwy., San Antonio 1, Texas (B)
 von Rosenberg, H. J., 330 Melrose Pl., San Antonio 5, Texas (B)
 Walsh & Burney Co., 928 N. Flores St., San Antonio 1, Texas (B-Hvy)
 Worcester, John C., 1203 Transit Tower, San Antonio, Texas (B)

(f) TEXAS HIGHWAY BRANCH

President—R. W. McKinney, P. O. Drawer 190, Nacogdoches, Texas
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 Adams, Geo. B., 808 Ennis Ave., Bryan, Texas (H)
 Adams, R. N., P. O. Box 376, Kaufman, Texas (H)
 Allhands & Briley, Irwin Keasler Bldg., Dallas 1, Texas (H)
 Allhands & Swatzell, Inc., Southwestern Life Bldg., Dallas 1, Texas (H)
 Anglin, Ross, P. O. Box 4038, Austin, Texas (H)
 Armstrong & Armstrong, Box 873, Roswell, N. Mex. (H)
 Austin Bridge Co., P. O. Box 1590, Dallas 1, Texas (H)
 Austin Contr. Co., P. O. Box 1590, Dallas, Texas (H)
 Austin Road Co., Box 1590, Dallas 1, Texas (H)
 Barnes, W. L., 3102 Perry Lane, Austin, Texas (H)
 Bell, Braden, Barker & Gilvin, Inc., Box 2268, Amarillo, Texas (H)
 Briggs, R. W., & Co., P. O. Box 1981, San Antonio, Texas (B-Hvy)
 Brittain & Gibbins, Box 7067, Fort Worth, Texas (H)
 Brown, Marvin, Inc., P. O. Box 14117, Houston, Texas (H)
 Brown & Root, Inc., P. O. Box 1139, Austin, & P. O. Box 3, Houston 1, Texas (B-Hvy)
 Bryan & Hoffman, P. O. Box 390, 421 Scaggs Bldg., Plainview, Texas (H)
 Buckner, John F., & Sons, P. O. Box 76, 509 S. Main, Cleburne, Texas (H)
 Buckner, R. C., P. O. Box 609, Jacksonville, Texas (H)
 Bucy, A. L., 804 Avenue I, Brownwood, Texas (H)
 Butler, H. L., & Son, P. O. Box 7112, Dallas 9, Texas (H)
 Butler, R. B., Inc., Box 471, Bryan, Texas (H)
 Cage Bros., 6959 San Pedro, Rt. 10, Box 46, San Antonio, Texas (H)
 Cagle, Harry E., 4304 Dixie Dr., Houston, Texas (B-Hvy)
 Callan Constr. Co., P. O. Box 3146, Westview Sta., Waco, Texas (H)
 Campbell, Harry, Rt. 5, Box 68-A, Abilene, Texas (H)
 Campbell & Kay, P. O. Box 836, Tyler, Texas (B-Hvy-RR)

Canion, J. R., Constr. Co., P. O. Box 756, Austin, Texas (B-Hvy)
 Centex Paving Co., Frost National Bank Bldg., San Antonio 5, Texas (H)
 Clardy, J. B., Constr. Co., Box 7024, Sylvania Sta., Fort Worth, Texas (H)
 Clinton, Houston, & Co., Box 325, Burnet, Texas (H)
 Cloud, Dudley R., & Son, 1903 Transit Tower, San Antonio, Texas (B-Hvy)
 Cohen, Chas., Dunn Bldg., Marshall, Texas (B-Hvy)
 Colglazier & Hoff, Inc., 326 Seguin Rd., San Antonio 8, Texas (H)
 Collins Constr. Co., P. O. Box 1192, Austin 6, Texas (B-Hvy)
 Cooper & Woodruff, 222 Mays Bldg., Amarillo, Texas (H)
 Crawford, W. S., Co., 5350 Montrose Dr., Dallas 9, Texas (H)
 D & H Constr. Co., Box 7053, Dallas 9, Texas (H)
 Darby, E. B., Co., Box 467, Pharr, Texas (H)
 Davidson, Joe, P. O. Box 439, Terrell, Texas (H)
 Dellinger, J. M., Inc., P. O. Box 4227, Corpus Christi, Texas (H)
 Dement, Ivan, Box 1787, Amarillo, Texas (H)
 Dew Constr. Co., Box 611, Tyler, Texas (H)
 Dodds & Wedegartner, Inc., Box 1950, San Benito, Texas (H)
 Farnsworth & Chambers Co., Inc., P. O. Box 74, Houston 1, Texas (B-Hvy)
 Farr, R. T., P. O. Box 294, Belton, Texas (H)
 Foley & Williams, Tyler, Texas (H-RR)
 Freeland, Jack, & Co., 6637 W. Commerce, San Antonio, Texas (H)
 Gaylord Constr. Co., 806 Blodgett St., Houston 6, Texas (B-Hvy)
 General Constr. Co., P. O. Box 1524, Fort Worth 1, Texas (H)
 Gifford-Hill & Co., Inc., Texas Bank Bldg., Dallas 2, Texas (H-RR)
 Gulf Bitulithic Co., P. O. Box 2572, Houston 1, Texas (B-Hvy)
 Hable, E. W., & Sons, P. O. Box 628, Corsicana, Texas (H)
 Hall, Fred, & Son, P. O. Box 488, Valley Mills, Texas (H)
 Hanson, Olene, 4906 Griggs Rd., Houston, Texas (H)
 Harrison Engr. & Constr. Corp., 4638 Mill Creek Pkwy., Kansas City 2, Mo. (B-Hvy)
 Heidelberg, C. R., 320 Jackson St., Jacksonville, Texas (H)
 Heldenfels Bros., P. O. Box 1917, Corpus Christi, Texas (H)
 Henderson, H. R., & Co., Drawer 313, Marshall, Texas (H)
 Hoffman, Ned B., Fort Worth Club Bldg., Fort Worth, Texas (H)
 Hood, E. E., & Son, Box 6097, Harlandale Sta., San Antonio, Texas (H)
 Howard, J. H., Box 495, Madisonville, Texas (H)
 Howard, O. W., Box 496, Madisonville, Texas (H)
 Jarbet Co., The, 903 Basse Rd., San Antonio, Texas (H)
 Kelly Constr. Co., 2215 Belknap, San Antonio 1, Texas (B-Hvy)

A.G.C. DIRECTORY

TEXAS—Continued

Kerr & Middleton, 2206 Clovis Rd., Lubbock, Texas (H)
 Kies, Geo., 4612 Ridge Oak Dr., Austin 3, Texas (H)
 Killian-Keller Co., P. O. Box 393, Fredericksburg, Texas (H)
 Killian, M. B., 4600 Broadway, San Antonio, Texas (H)
 Lacy, L. H., Co., 5630 Yale Blvd., Dallas 5, Texas (B-H)
 Larson, Norman L., 305 Littlefield Bldg., Austin, Texas (H)
 Leslie, John T., Bailey, Texas (H)
 Livingston, C. H., Box 1012, Bay Ridge Rd., La Porte, Texas (H)
 Loyd, Ernest, P. O. Box 1120, Fort Worth, Texas (H)
 Mays, Ernest L., 3430 Minglewood Dr., Beaumont, Texas (H)
 McKenzie Constr. Co., P. O. Box 806, San Antonio 6, Texas (B-H-RR)
 McKinney, R. W., P. O. Drawer 190, Nacogdoches, Texas (H)
 McKown & Sons, Box 785, Austin, Texas (H)
 McMillan, Hugh, P. O. Box 1227, El Paso, Texas (H)
 McMillin-Burkett Constr. Co., P. O. Box 450, Texarkana, Texas (H)
 Menefee Bros. & Alford, Center, Texas (H)
 Miles, L. J., Constr. Co., Box 3217, Poly. Sta., Fort Worth, Texas (H)
 Mitchell, Russ, Inc., 5304 Old Spanish Trail, Box 8068, Houston 3, Texas (H)
 Moore, Bart, Co., P. O. Box 6557, Alamo Heights Br., San Antonio 9, Texas (H)
 Moore Bros. Constr. Co., P. O. Box 35, Lufkin, Texas (H-Hvy)
 Newton, Harry, Inc., Graham Land Office Bldg., Graham, Texas (H)
 Oldt, F. S., Co., 403 S. Haskell, Dallas, Texas (H-Hvy)
 Pace-Spence Co., Rt. 1, Box 57, Mansfield, Texas (H-Hvy)
 Page, Holland, Box 1181, Austin, Texas (H)
 Panhandle Constr. Co., 620 Texas, Lubbock, Texas (H-Hvy)
 Pelphrey-Farquhar, Inc., 1412 Electric Bldg., Fort Worth 2, Texas (H)
 Pelphrey, L. W., Co., P. O. Box 1166, Gladewater, Texas (H)
 Pelphrey, W. O., 1412 Electric Bldg., Fort Worth 2, Texas (H)
 Perry, J. W., 501 Insurance Bldg., San Antonio 5, Texas (H)
 Ratliff, H., Rogers, Texas (H)
 Reeves, F. M., & Sons, P. O. Box 972, Austin 5, Texas (H)
 Ruby, M. E., Box 96, San Marcos, Texas (H)
 Schwoppe Bros., 6633 W. Commerce St., San Antonio, Texas (H-Hvy)
 Sira, Ben, & Co., 6419 Maple Ave., Dallas 9, Texas (H)
 Skinner, Dean, Box 4057, North Sta., Austin, Texas (H)
 Smith, R. B., Inc., 3702 Glenn Haven, Houston 5, Texas (H)
 South Texas Constr. Co., P. O. Box 3536, Corpus Christi, Texas (H)

Southern Contr. Co., Box 5001, West Austin Sta., Austin, Texas (H)
 Spencer Constr. Co., P. O. Box 338, Carrollton, Texas (H-Hvy-RR)
 Standard Paving Co., 709 Fort Worth National Bank Bldg., Fort Worth 2, Texas (H)
 Strain & Brown, Inc., Box 1057, San Angelo, Texas (H)
 Strain, C. Hunter, P. O. Box 1057, San Angelo, Texas (H)
 Sunset Constr. Co., P. O. Box 1981, San Antonio, Texas (H)
 Tecon Constr. Co., Inc., 1201 Main St., Dallas, Texas (H)
 Texas Bitulithic Co., P. O. Box 5297, Dallas 2, Texas (H)
 Trotti & Thomson, Inc., P. O. Box 70, Beaumont, Texas (H)
 Turner, Luther A., & Son, Box 542, Buda, Texas (H)
 Uvalde Constr. Co., P. O. Box 10286, Dallas 1, Texas (H-Hvy)
 Vardeman, T. R., & Son, 727½ E. Main, Box 485, Nacogdoches, Texas (H)
 Vowell Constr. Co., P. O. Box 253, El Paso, Texas (H)
 Wendel Constr. Co., P. O. Box 231, El Campo, Texas (H)
 Western Contracting Corporation, 400 Benson Bldg., Sioux City, Iowa (H)
 Word, Dean, Co., Box 330, New Braunfels, Texas (H)
 Worrell, M. E., Box 278, Junction, Texas (H)
 Worrell & Watkins, P. O. Box 5084, Dallas, Texas (H)
 Worth Constr. Co., P. O. Box 531, Fort Worth, Texas (H)
 Wright, W. V., Constr. Co., Box 9688, Dallas 14, Texas (H)
 Zachry, H. B., Co., Constr. Div., P. O. Box 2570, San Antonio, Texas (B-H-Hvy-RR)

(g) PANHANDLE OF TEXAS CHAPTER

President—F. D. Hill, F. D. Hill Constr. Co., P. O. Box 207, 1013 W. 14th, Amarillo, Texas
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 Hill, F. D., Constr. Co., 1013 W. 14th, P. O. Box 207, Amarillo, Texas (B)
 Jesse, Frank, 2416 Hughes St., Amarillo, Texas (B)
 Lambie, C. S., & Co., 431 Amarillo Bldg., P. O. Box 1167, Amarillo, Texas (B)
 Mathis, Claude E., 301 N. Tyler St., P. O. Box 1727, Amarillo, Texas (B)
 Ramey Constr. Co., Paramount Bldg., P. O. Box 6, Amarillo, Texas (B)
 Richards, Floyd, 511 W. 5th St., P. O. Box 532, Amarillo, Texas (B)
 Singleton, Musick & Co., 514 N. Fillmore St., P. O. Box 2130, Amarillo, Texas (B)
 Smith & Robinson, 401 Cedar St., Borger, Texas (B)

Timmons Constr. Co., 1707½ W. 7th Ave., P. O. Box 3128, Amarillo, Texas (B)
 Tri-State Constr. Co., P. O. Box 851, Amarillo, Texas (B)
 Wedding & Cochran, 315 Lipscomb St., P. O. Box 1592, Amarillo, Texas (B)
 Wes-Tex Constr. Co., P. O. Box 1431, Borger, Texas (B)
 Wirtz, Walter E., 504 Jefferson St., P. O. Box 906, Amarillo, Texas (B)

(h) ASSOCIATED GENERAL CONTRACTORS OF JEFFERSON COUNTY

President—Winter King, Winter King & Son, 2293 Park St., Beaumont, Texas
Secretary—A. E. Wenham, 2276 Park St., Beaumont, Texas
Telephone: 2-8311
 Andrus, M. R., 1433 Emile, Beaumont, Texas (B)
 Beaumont Constr. Co., P. O. Box 2814, Beaumont, Texas (H-Hvy)
 Collins, O. W., 2048 Procter St., Port Arthur, Texas (B-Hvy)
 Farnsworth, R. P., & Co., P. O. Box 1029, Beaumont, Texas (B)
 Foster Bros., 1948 Stadium Rd., Port Arthur, Texas (B)
 Foster, H. B., 4125 16th St., Port Arthur, Texas (B)
 Hays, A. L., & Son, P. O. Box 301, Port Arthur, Texas (B)
 King, Winter, & Son, 2293 Park St., Beaumont, Texas (B)
 Ratcliff Bros. Constr. Co., 312 Main St., Liberty, Texas (B)
 Sargl, G., Box 1007, Beaumont, Texas (B)
 Schneider Constr. Co., P. O. Box 13157, Houston 19, Texas (B)
 Tellepsen Constr. Co., 1710 Telephone Rd., Houston 1, Texas (B-Hvy)
 Weber, Herman, Inc., 800 N. Pearl St., Beaumont, Texas (B)

(i) SOUTH TEXAS CHAPTER

President—C. C. Hinchberger, Hinchberger Constr. Co., P. O. Box 134, Corpus Christi, Texas
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 Adams, John, 1512 Mesquite St., Corpus Christi, Texas (B)
 Aikin, Lee, P. O. Box 2350, Corpus Christi, Texas (B-Hvy)
 Arthur Bros., 813 S. 6th St., P. O. Box 1089, Kingsville, Texas (B)
 Beck, O. J., & Sons, 340 Westchester Dr., Corpus Christi, Texas (B)
 Bermingham, J. W., Constr. Co., Inc., 1809½ Morgan St., Corpus Christi, Texas (B)
 Bigler & Bigler, 1545 Clodah, Corpus Christi, Texas (B)
 Braselton Constr. Co., Box 4027, Corpus Christi, Texas (B)
 Burnett Constr. Co., Box 336, Corpus Christi, Texas (B)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

TEXAS—Continued

Davis Constr. Co., 3132 Morgan Ave., Corpus Christi, Texas (B)
 Edgeworth Constr. Co., 433 Villa Dr., Corpus Christi, Texas (B-H)
 Eisenhower, E., 1205 N. Tancagua St., Corpus Christi, Texas (B)
 Gilbreath, Chas. H., P. O. Box 1556, Alice, Texas (B)
 Goldston Co., The, 918 E. Port, P. O. Box 672, Corpus Christi, Texas (Hvy)
 Harrison, E. E., P. O. Box 477, Corpus Christi, Texas (B)
 Hinchberger Constr. Co., P. O. Box 134, Corpus Christi, Texas (B)
 Hinman, A. E., 957 Navigation Blvd., Box 1672, Corpus Christi, Texas (B-Hvy)
 Jackson, E. B., Box 1263, Corpus Christi, Texas (B)
 Lawless & Alford, Box 1248, Corpus Christi, Texas (B)
 Leslie, C. E., P. O. Box 1269, Kingsville, Texas (B-Hvy)
 Linbeck Constr. Corp., P. O. Box 13007, Houston 19, Texas (B)
 Phillips, John W., 324 Parr St., P. O. Box 3253, Corpus Christi, Texas (B)
 Slovak Bros., Whalen Dr., Box 5096, Corpus Christi, Texas (B-H)
 Standard Contr. Co., Inc., P. O. Box 1550, Bay City, Texas (B)
 Tellepsen Constr. Co., 1710 Telephone Rd., P. O. Box 2536, Houston 1, Texas (B-Hvy)
 Walsh, J. A., 313 Bartlett Dr., Corpus Christi, Texas (B)
 Weaver Constr. Co., 628 Atlantic, Corpus Christi, Texas (B)
 Wolter, W. H., 109 N. Carrizzo St., Corpus Christi, Texas (B)
 Woodruff, H. E., Box 1146, Corpus Christi, Texas (B)

(j) MUNICIPAL CONTRACTORS ASSOCIATION (TEXAS)

President—A. J. McKenzie, Jr., McKenzie Constr. Co., P. O. Box 806, San Antonio 6, Texas
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Acme Constr. Co., P. O. Box 200-W, Oklahoma City, Okla. (Hvy)
 Allison, H. F., Co., 7110 Junius, Dallas 14, Texas (Hvy)
 Andrews-Parker, Inc., P. O. Box 927, Bryan, Texas (Hvy)
 Asplund Constr. Co., Box 1665, Enid, Okla. (Hvy)
 B & M Constr. Corp., 1501 Petroleum Bldg., Oklahoma City, Okla. (Hvy)
 Baker, Earl W., Co., Box 200 Warr Acres, Oklahoma City, Okla. (Hvy)
 Bartholomew Constr. Co., 513 Gulf States Bldg., Dallas 1, Texas (Hvy)
 Bate, Thos., & Sons, 1107 Girard St., Houston 10, Texas (B-Hvy)
 Bland, Joe, Constr. Co., 4704 E. 1st St., P. O. Box 1158, Austin, Texas (Hvy)
 Broughton, O. J., 2928 Amherst, Dallas, Texas (Hvy)

Brown, Marvin, Inc., 4425 Dupont St., P. O. Box 14117, Houston, Texas (H-Hvy)
 Brown & Root, Inc., P. O. Box 3, Houston 1, Texas (Hvy)
 Bruce Constr. Co., P. O. Box 7421, Fort Worth, Texas (Hvy)
 Century Constr. Co., P. O. Box 5175, Houston, Texas (Hvy)
 Cullum, W. G., & Co., 1412 Fidelity Union Life Bldg., Dallas, Texas (Hvy)
 Dalton, E. L., & Co., Ltd., 3003 Hawes St., P. O. Box 7125, Dallas, Texas (Hvy)
 Darby, Mitchell, Constr. Co., 32-A M. & J. Nelson Bldg., McAllen, Texas (Hvy)
 Diamond Engr. Co., 8100 2d Ave., Dallas, Texas (Hvy)
 Dickerson, G. W., 2322 Culebra Ave., San Antonio, Texas (Hvy)
 Doerfler Constr. Co., 2514 S. Agnew, Oklahoma City, Okla. (Hvy)
 Dyer, Hal C., Lone Star Gas Bldg., Dallas 1, Texas (Hvy)
 Farrow, E. E., Co., Box 7145, Dallas 9, Texas (Hvy)
 Gardner, Elmer C., Inc., P. O. Box 6181, Houston 6, Texas (Hvy)
 George Constr. Co., P. O. Box 2573, Houston, Texas (Hvy)
 George, J. D. Co., 707 Amicable Bldg., Waco, Texas (Hvy)
 Glade Constr. Co., P. O. Box 2055, Fort Worth 1, Texas (Hvy)
 Happel, H. J., Constr. Co., 5501 E. Admiral Blvd., Tulsa, Okla. (Hvy)
 Harrison, C. H., P. O. Box 185, Waco, Texas (Hvy)
 Heldenfels Bros., P. O. Box 1917, Corpus Christi, Texas (Hvy)
 Holland, John G., Constr. Co., 1602 Old Spanish Trail, Houston, Texas (Hvy)
 Holtzer, Herman W., P. O. Box 1061, Fort Worth, Texas (Hvy)
 Imperial Paving Co., 700 E. Grand Ave., Oklahoma City 4, Okla. (Hvy)
 Koller Constr. Co., 312 City National Bldg., Oklahoma City, Okla. (Hvy)
 Larsen, H., 4214 W. Northwest Hwy., Dallas 9, Texas (Hvy)
 Layne-Texas Co., Ltd., The, 6419 Maple, Dallas, & P. O. Box 9098, Houston 11, Texas (Hvy)
 Lee, T. H., 401 N. Tancagua, Rm. 128, Corpus Christi, Texas (Hvy)
 McDonald Constr. Co., P. O. Box 9617, Dallas, Texas (Hvy)
 McDonald, Henry C., Co., P. O. Box 1032, Kilgore, Texas (Hvy)
 McIlhary, W. K., Constr. Co., 8505 Douglas, Dallas, Texas (Hvy)
 McKenzie Constr. Co., P. O. Box 806, San Antonio 6, Texas (Hvy)
 Midwest Contr. Co., Rt. 7, Box 493-G, Dallas, Texas (Hvy)
 Mitchell, Roy M., 2120 W. Erwin St., Tyler, Texas (Hvy)
 Mitchell, Russ, Inc., 5304 Old Spanish Trail, Box 8068, Houston 3, Texas (Hvy)
 Mora, Gerald, P. O. Box 2623, Houston, Texas (Hvy)
 Nunn, Paul H., 5100 Belle Isle, Oklahoma City, Okla. (Hvy)
 Oldt, F. S., Co., 403 S. Haskell, Dallas, Texas (Hvy)

Osage Constr. Co., 1413 S. Blackwelder Ave., Oklahoma City, Okla. (Hvy)
 Parrott, O. J., 6923 Seyene Rd., Dallas, Texas (Hvy)
 Pelphrey & Basham, Inc., Electric Bldg., Fort Worth, Texas (Hvy)
 Pennington & Winter Constr. Co., 2911 Apco Tower, Oklahoma City, Okla. (Hvy)
 Ransdell Constr. Co., 1014 National City Bank Bldg., Dallas, Texas (Hvy)
 Rea, Wayne L., P. O. Box 1192, Corpus Christi, Texas (Hvy)
 Red River Constr. Co., 2212 Hollywood Ave., Shreveport, La. (B)
 Reeder, E. H., Constr. Co., 2128 Hawes Ave., Dallas, Texas (Hvy)
 Sherman Machine & Iron Works, 26 E. Main St., Oklahoma City, Okla. (Hvy)
 Sira, Ben, & Co., 6419 Maple Ave., Dallas, Texas (Hvy)
 Small, C. E., 617 1st National Bank Bldg., Dallas, Texas (Hvy)
 Sorenson, P. C., & Co., Inc., P. O. Box 4093, Dallas 8, Texas (Hvy)
 Southwest Paving Co., P. O. Box 8065, Houston 4, Texas (Hvy)
 Stimson Corp., P. O. Box 5302, Dallas, Texas (Hvy)
 Stovall, R. B., Co., P. O. Box 7143, Dallas, Texas (Hvy)
 Stowell, F. M., 5208 E. 15th St., Tulsa, Okla. (Hvy)
 Swatek, M. A., & Co., P. O. Box 3886, Oklahoma City 6, Okla. (Hvy)
 Swilling & Boyd, P. O. Box 569, Pineville, La. (Hvy)
 Trueheart, J. C., Constr. Co., 812 Insurance Bldg., San Antonio, Texas (Hvy)
 Uvalde Constr. Co., P. O. Box 10286, Dallas, Texas (Hvy)
 Wagner, Karl B., Box 4116, Austin, Texas (Hvy)
 White, J. M., & Sons, South Houston, Texas (Hvy)
 Whittle, R. D., Constr. Co., P. O. Box 5602, Dallas, Texas (Hvy)
 Williams, Cole, Inc., 7903 Manderville Lane, Dallas 6, Texas (Hvy)
 Williams, J. L., Constr. Co., Inc., 5609 Bellaire Blvd., P. O. Box 164, Bellaire, Texas (Hvy)
 Zachry, H. B., Co., P. O. Box 2570, San Antonio, Texas (Hvy)

(k) AUSTIN CHAPTER

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 Broad, John, Constr. Co., P. O. Box 862, 1711 W. 5th, Austin 63, Texas (B)
 Chandler Constr. Co., Box 84, 603 E. 29th St., Cameron, Texas (B)
 Crockett, Leslie, Constr. Co., P. O. Box 4036, 5619 Airport Blvd., Austin 51, Texas (B)
 DeBusk, Kelly S., Jr., 2607 Westover Rd., Austin 3, Texas (B)

TEXAS—Continued

Eitze-Kitchens Constr. Co., P. O. Box 3116, 4614 San Antonio Hwy., Austin 13, Texas (B)
 Evans, J. C., 1017 W. 34th St., P. O. Box 4054, Austin 51, Texas (B)
 Jones, Jo B., Co., 2501 E. 5th St., P. O. Box 330, Austin 62, Texas (B)
 Kitchens, Rex D., Constr. Co., P. O. Box 3006, 608 W. Monroe, Austin 13, Texas (B-H)
 Lawless & Alford, Inc., P. O. Box 600, 5117 E. 1st St., Austin 63, Texas (B)
 Moore Constr. Co., P. O. Box 300, 125 E. Riverside Dr., Austin 62, Texas (B)
 Morris, Robt., Constr. Co., Green Acres Addition, 6709 Vine, Austin 5, Texas (B)
 Odom, J. M., P. O. Box 774, 914 Congress Ave., Austin 64, Texas (B-H)
 Ragland, Troy, 1001 E. 46 St., Austin 5, Texas (B)
 Reich, Hugh D., P. O. Box 373, 2301 Canterbury, Austin 62, Texas (B)
 Rundell, Frank R., P. O. Box 455, 309 Bowie, Austin 63, Texas (B)
 Snead, E. B., Constr. Co., P. O. Box 777, Aero-Tel Airport, Austin 64, Texas (B)
 Starling Constr. Co., P. O. Box 109, Burnet Rd., Austin 62, Texas (B)
 Temple Housing Corp., 14 W. Adams Ave., P. O. Box 425, Temple, Texas (B)
 Webb, T. A., 2205 Swisher, Austin 5, Texas (B)

(I) WACO CHAPTER

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 Chapman, Oscar T., Inc., P. O. Box 37, Hutchins, Texas (B)
 Hendrick, C. L., & Sons, 2111 N. 21st St., Waco, Texas (B)
 Hendrick, David R., & Co., 1118½ Franklin Ave., P. O. Box 956, Waco, Texas (B)
 Hicks Constr. Co., 2911 N. 18th St., P. O. Box 2143, Waco, Texas (B)
 Hooker Constr. Co., 1315 N. 4th St., P. O. Box 2025, Waco, Texas (B)
 Johnson, Ed, Marlin Hwy., P. O. Box 424, Waco, Texas (B)
 Jones & Williams Constr. Co., 2504 LaSalle St., P. O. Box 2097, Waco, Texas (B)
 Smith Bldg. Co., Inc., 2512 Franklin Ave., P. O. Box 796, Waco, Texas (B)
 Sparks, K. A., 523 E. Pierson St., Hamilton, Texas (B)
 Sparks, W. P., Jr., 3318 Mitchell Rd., Waco, Texas (B)
 Wales, Geo. B., 2716 Lasker Ave., P. O. Box 2298, Waco, Texas (B)

(m) PIPE LINE CONTRACTORS' ASSOCIATION (TEXAS)

President—Robt. Thomas, Texas-Louisiana Contrs., 6100 Camp Bowie, P. O. Box 9127, Fort Worth, Texas
Executive Secretary—Richard A. Gump, 1023 Mercantile Bank Bldg., Dallas, Texas
Telephone: Prospect 8424

Anderson Bros. Corp., 707 N. Drennan St., P. O. Box 2591, Houston, Texas (Hvy)
 Anderson Constr. Co., Box 116, Salem, Ill. (Hvy)
 Associated Pipe Line Contrs., Inc., 11-12 Lamar-River Oaks Shopping Center, 3272 Westheimer, P. O. Box 2163, Houston 1, Texas (Hvy)
 Bechtel Corp., 220 Bush St., San Francisco 4, Calif. (Hvy)
 Britton Bros. Contr. Co., 813 Dan Waggoner Bldg., Fort Worth, Texas (Hvy)
 Britton Contr. Co., Inc., 55 S. Main St., Washington, Pa. (Hvy)
 Brodie Constr. Co., P. O. Box 2064, Amarillo, Texas (Hvy)
 Burden, O. R., Constr. Corp., P. O. Box 5216, Tulsa, Okla. (Hvy)
 Conyes Constr. Corp., 2884 San Pablo Ave., San Pablo, Calif. (Hvy)
 Eastern Pipeline Contrs., 1801 Mercantile Bank Bldg., Dallas 1, Texas (Hvy)
 Engineers Ltd. Pipeline Co., 225 Bush St., San Francisco 4, Calif. (Hvy)
 Fahey, John D., & Son, Inc., Rm. 306, 1st National Bank Bldg., Waynesburg, Pa. (Hvy)
 Foreman, C. S., Co., 1900 Armour Rd., North Kansas City, Mo. (Hvy)
 Fowler, C. Wayne, Pipe Line Contr., Inc., P. O. Box 368, Cotton Valley, La. (Hvy)
 Fulghum Contr. Corp., P. O. Box 1181, Harrisburg, Pa. (Hvy)
 Fulton, R. H., & Co., P. O. Box 1526, Lubbock, Texas (Hvy)
 Houston Contr. Co., 2707 Ferndale Pl., Houston 6, Texas (Hvy)
 Little, I. C., 225 Southland Hotel Bldg., Dallas, Texas (Hvy)
 Lone Star Constrs., 10301 Shady Trail, Dallas, Texas (Hvy)
 Mahoney Contr. Co., 2300 N. Grand River, Lansing, Mich. (Hvy)
 Massey Pipe Line Constr. Co., P. O. Box 2099, Corpus Christi, Texas (Hvy)
 McVean & Barlow, P. O. Box 151, Odessa, Texas (Hvy)
 Mid-States Constr. Co., Inc., P. O. Box 417, Mt. Vernon, Ill. (Hvy)
 Midwestern Constrs., Inc., 105 N. Boulder, Tulsa 3, Okla. (Hvy)
 Midwestern Contrs., Inc., 130 W. Liberty Dr., Box 587, Wheaton, Ill. (Hvy)
 Oklahoma Contr. Co., 6612 Harry Hines Blvd., P. O. Box 1073, Dallas, Texas (Hvy)
 Panama-Williams Co., Melrose Bldg., Houston, Texas (Hvy)
 Pipe Line Constr. & Drilling Co., P. O. Box 165, Camp Hill, Pa. (Hvy)

Potashnick, R. B., P. O. Box 205, Cape Girardeau, Mo. (Hvy)
 Price, H. C., Co., Union National Bank Bldg., Bartlesville, Okla. (Hvy)
 Saigh, N. A., Co., Inc., 531 Majestic Bldg., San Antonio 5, Texas (Hvy)
 Sheehan Pipe Line Constr. Co., 529 National Bank of Tulsa Bldg., Tulsa 3, Okla. (Hvy)
 Smith Contr. Corp., 205 N. W. 7th St., Fort Worth, Texas (Hvy)
 Smith, Ray L., & Son, Inc., Box 391, El Dorado, Kans. (Hvy)
 Somerville Constr. Co., Ada, Mich. (Hvy)
 Texas-Louisiana Contrs., 6100 Camp Bowie, P. O. Box 9127, Fort Worth, Texas (Hvy)
 Trojan Constr. Co., Inc., 1416½ N. Robinson, Oklahoma City 3, Okla. (Hvy)
 Western Pipe Line Contrs., Inc., P. O. Box 798, Austin, Texas (Hvy)
 White, M. E., Constr. Co., P. O. Box 441, 715 W. Woodside, McPherson, Kans. (Hvy)
 Williams-Austin Co., 707 Grant Bldg., Pittsburgh 19, Pa. (Hvy)
 Williams Bros. Co., 324 National Bank of Tulsa Bldg., Tulsa 3, Okla. (Hvy)

(n) EAST TEXAS CHAPTER

President—J. A. Sharrock, J. A. Sharrock & Sons, P. O. Box 268, Marshall, Texas
Secretary—Raymond Cupp, P. O. Box 808, Longview, Texas
Telephone: 406
 Brown, M. Clint, Co., P. O. Box 808, Longview, Texas (B)
 Byers, J. B., 2208 Florence St., Box 1215, Kilgore, Texas (B)
 Canterbury Engr. Co., P. O. Box 1494, Kilgore, Texas (B)
 Choate, Milo J., & Co., 1412 W. 5th St., Tyler, Texas (B)
 Jameson Constr. Co., Box 626, Longview, Texas (B)
 Kerr Engr. & Constr. Co., Laird Hill Rd., Box 1342, Kilgore, Texas (B)
 Owens, J. Sam, Constr. Co., P. O. Box 1151, Longview, Texas (B)
 Sharrock, J. A., & Sons, P. O. Box 268, Marshall, Texas (B)
 Thompson & Morton Co., P. O. Box 867, Kilgore, Texas (B)
 Walton, W. W., Co., 1904 Belvedere St., P. O. Box 810, Tyler, Texas (B)
 Wilmoth, Tom, 108 Highland Ave., Longview, Texas (B)
 Yates Constr. Co., P. O. Box 633, Marshall, Texas (B)

(o) RIO GRANDE VALLEY CHAPTER

President—Frank G. Parker, Parker Constr. Co., P. O. Box 821, Harlingen, Texas
Managing Director—Randolph Fleuriot, Box 496, Harlingen, Texas
Telephone: 1807
 Allen, Fred M., 718 N. Milam St., San Benito, Texas (B)
 Buice, A. A., Box 422, Elsa, Texas (B)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

TEXAS—Continued

Cail, Geo. F., & Son, P. O. Box 162, Port Isabel, Texas (B)
 Drake & Drake, Box 809, Alamo, Texas (B)
 Hendricks, Harold, Contr. Co., One Mile S. 10th St., McAllen, Texas (B)
 Hughes, J. B., Box 448, Brownsville, Texas (B)
 LeMay, Ralph B., 811 Nebraska, Weslaco, Texas (B)
 Marchant Bros. & Balay, Rm. 309, Hidalgo County Bank Bldg., P. O. Box 545, Mercedes, Texas (B)
 Parker Constr. Co., P. O. Box 821, Harlingen, Texas (B)
 Swanzy, Ralph, 900 Ash Dr., P. O. Box 196, Weslaco, Texas (B)
 Thise, C. P., 1229 W. Jackson, Box 1910, Harlingen, Texas (B)
 Uhlhorn, W. B., 1115 E. Harrison St., Box 2028, Harlingen, Texas (B)
 Waitman, E. J., 617 S. West St., Box 91, Harlingen, Texas (B)

(p) WEST TEXAS CHAPTER

President—Houston Hill, Houston Hill, Inc., P. O. Box 390, 307 S. Marienfield St., Midland, Texas
Secretary-Treasurer—Ed Balfanz, Balfanz Constr. Co., P. O. Box 805, 1001 Chestnut St., Abilene, Texas
Executive Secretary—Hugh H. Welch, 702 N. 13th St., Abilene, Texas
Telephone: 3-1861

B. C. D. Constr. Co., Box 586, Ballinger, Texas (B)
 BMFP Constr. Co., 2010 Avenue C, Box 1595, Lubbock, Texas (B)
 Balfanz Constr. Co., 1001 Chestnut St., P. O. Box 805, Abilene, Texas (B)
 Bunch Constr. Co., 220 E. 21st St., Box 567, Odessa, Texas (B)
 Bundock, H. R., 2403 1st St., P. O. Box 13, Lubbock, Texas (B)
 Evans & Taylor, P. O. Box 1222, San Angelo, Texas (B)
 Fields, Geo. A., 1921 Avenue Q, Box 444, Lubbock, Texas (B)
 Gilstrap Constr. Co., P. O. Box 283, Lubbock, Texas (B)
 Hair, J. L., & Sons Constr. Co., 2704 Kemp Blvd., Wichita Falls, Texas (B)
 Hill, Houston, Inc., P. O. Box 390, 307 S. Marienfield St., Midland, Texas (B)
 Horn, B. F., Co., 3000 N. 1st St., P. O. Box 493, Abilene, Texas (B)
 Jones, J. D. Constr. Co., Box 1205, Big Spring, Texas (B)
 King Constr. Co., P. O. Box 652, 2107 N. Jackson, Odessa, Texas (B)
 Maxey, Carl E., 1627 College Ave., P. O. Box 108, Lubbock, Texas (B-Hvy)
 Maxey, Robt. E., Constr. Co., 720 Avenue Q, Lubbock, Texas (B-Hvy)
 McAbee, Tom G., 2306 26th St., Lubbock, Texas (B)
 McAlister, Albert A., Box 302, 133 Leggett Dr., Abilene, Texas (B)
 McDaniel, Boyd J., Co., 1925 Chestnut St., P. O. Box 1138, Abilene, Texas (B-Hvy)
 McGuire Constr. Co., P. O. Box 2196, Abilene, Texas (B)

McMillan, W. G., & Son, 709 Avenue J, Box 1447, Lubbock, Texas (B)
 Newton Constr. Co., 620 N. Belmont, P. O. Box 4108, Odessa, Texas (B)
 Oates, C. B., Box 1171, Abilene, Texas (B)
 Owens, R. B., 307 Glenmore Dr., San Angelo, Texas (B)
 Reid-Baldwin, 700 N. Scott St., Wichita Falls, Texas (B)
 Rose Constr. Co., 1121 Walnut St., P. O. Box 814, Abilene, Texas (B)
 Sivley, W. Rufus, 4081 Benbrook, Abilene, Texas (B)
 Sneed Constr. Co., P. O. Box 383, 1501 E. 8th, Odessa, Texas (B)
 Stanford, Pat H., Box 1882, 2511 W. S. Front St., Midland, Texas (B)
 Stonehocker, Felix W., Constr. Co., 405 N. Baird, Box 1163, Midland, Texas (B)
 Taylor-Howe Co., 2204 9 St., P. O. Box 387, Wichita Falls, Texas (B)
 Templeton-Cannon, 208 Central National Bank Bldg., P. O. Box 548, San Angelo, Texas (B)
 Tharp, Joe B., 2501 Colorado St., P. O. Box 1292, San Angelo, Texas (B)
 Tidmore Constr. Co., 21 Park Pl., Lubbock, Texas (B)
 Tisdell Constr. Co., 1517 Avenue H, Lubbock, Texas (B)
 Vordenbaum, M. A., & Sons, 3104 Grant St., Wichita Falls, Texas (B)
 Warner Constr. Co., Holcombe-Blanton Bldg., P. O. Box 769, San Angelo, Texas (B)
 West Texas Bldrs., Box 3161 Ellwood St., Lubbock, Texas (B)

43. UTAH

(a) INTERMOUNTAIN BRANCH

President—Harold J. Whiting, Whiting & Haymond, 250 W. 2d. No., Springville, Utah
Manager—C. M. Brown, Jr., 430 S. Main St., Salt Lake City 1, Utah
Telephone: 3-2753

Barker, Ellis W., Co., 302-303 Ness Bldg., Salt Lake City 1, Utah (B)
 Biesinger, Geo. L., & Son, 1449 S. 16th, E., Salt Lake City, Utah (B)
 Bowers Bldg. & Constr. Co., 1033 S. State St., Salt Lake City 4, Utah (B-H)
 Brown, Alfred, Constr. Co., 627 Dooly Bldg., Salt Lake City, Utah (B)
 Burke, Jas. J., Co., 405 Kearns Bldg., Salt Lake City 1, Utah (B-H)
 Campion Co., 202 21st St., Ogden, Utah (B)
 Cannon & Papanikolas, P. O. Box 277, Magna, Utah (B)
 Child, Ralph E., 1400 E. 4th, So., Springville, Utah (B)
 Christensen Constr. Co., Box 1165, Salt Lake City 10, Utah (H-RR)
 Christiansen Bros., 209 W. 13th, So., Salt Lake City 1, Utah (B)
 Chytraus Bros. Co., 2040 Redondo Ave., Salt Lake City, Utah (B)
 Clyde, W. W., & Co., Springville, Utah (H-Hvy)
 Davis, Ben H., 130 S. 5th, E., P. O. Box 2166, Salt Lake City, Utah (B)

Dorland, E. H., Constr. Co., 1309 Jefferson St., Salt Lake City, Utah (B)
 Fors, Carl S., Co., 1639 E. 56th, So., Murray, Utah (B)
 Fullmer Bros., 1600 Jefferson St., Salt Lake, Utah (B)
 Gardner, W. W., 207 Interurban Bldg., Salt Lake City 1, Utah (B-H-Hvy)
 Garff, Mark B., Ryberg & Garff, Box 1204, 850 W. 15th, No., Salt Lake City, Utah (B)
 Germer, Abbott & Waldron Constr. Co., Tremonton, Utah (H-Hvy)
 Gibbons & Reed Co., 825 W. 9th North St., Salt Lake City, Utah (H-Hvy-RR)
 Groneman & Co., 70 W. 5th, So., Provo, Utah (B)
 Hilton & Carr, 922 12th St., Box 572, Ogden, Utah (B)
 Horman Constr. Co., 1760 S. State St., Salt Lake City, Utah (B)
 Jacobsen Constr. Co., 421 W. 13th, So., Salt Lake City 2, Utah (B)
 Jensen Bros., 548 W. 2d, No., Salt Lake City 1, Utah (B)
 Jensen, R. M., Constr. Co., 1057 S. 4th, W., Salt Lake City, Utah (H-Hvy)
 Jensen, Wayne A., 140 S. 5th, W., Brigham City, Utah (B)
 Johnson, L. T., 709 Wall Ave., Ogden, Utah (H)
 Johnson, Le Grand, 595 E. 1st, So., Logan, Utah (H-Hvy)
 Kloepler Constr. Co., 900 E. Center St., Logan, Utah (B)
 Larsen Constr. & Eng. Co., 2667 Lincoln Ave., Ogden, Utah (B)
 McCullough, Maurice B., 503 13th Ave., Salt Lake City 3, Utah (B)
 McKean Constr. Co., 1625 Pioneer Rd., Industrial Center, Salt Lake City 4, Utah (B)
 Mickelson, John H., 528 E. Center St., Logan, Utah (B)
 Morrin, M., & Son, Inc., 473 W. 2d St., P. O. Box 1148, Ogden, Utah (B)
 Nelson, Carl E., 50 E. 10th, No., Logan, Utah (H)
 Nelson, Olof, Constr. Co., 620 S. Main St., Box 413, Logan, Utah (H)
 Okland Constr. Co., 2261 Oneida St., Salt Lake City, Utah (B)
 Olson Constr. Co., 1549 S. 2d, W., P. O. Box 89, Salt Lake City, Utah (B)
 Parson & Fife Constr. Co., 620 E. 5th, So., Box 563, Brigham City, Utah (H)
 Paulsen Constr. Co., 1425 Jefferson St., P. O. Box 2514, Salt Lake City 4, Utah (B)
 Plewe Constr. Co., 838 E. S. Temple St., Salt Lake City, Utah (B)
 Raymond, Ace S., 1032 N. Main St., Box 445, Logan, Utah (B)
 Reynolds Constr. Co., Springville, Utah (H-RR)
 Romney, G. Maurice, 424 S. 7th, E., Salt Lake City, Utah (B)
 Smith, Enoch, Sons Co., 1441 Beck St., Salt Lake City 16, Utah (H-Hvy)
 Sorensen Bros., 1330 W. 4200 So., Murray, Utah (B)
 Springmeyer Investment & Constr. Co., 288 Mt. View Dr., Murray, Utah (H-Hvy)
 Stettler, Ernest, & Sons, 672 E. 9th, No., Logan, Utah (B)

A.G.C. DIRECTORY

UTAH—Continued

Strong & Co., Springville, Utah (H-Hvy-RR)
 Sumsion, J. M., & Sons, 389 E. 1st, So.,
 Springville, Utah (H-Hvy-RR)
 Thorn Constr. Co., Inc., Box 111, Springville,
 Utah (H-RR)
 Tolboe Constr. Co., Inc., P. O. Box 72, Provo,
 Utah (B)
 Tolboe & Harlin Constr. Co., 3091 S. Main
 St., Salt Lake City, Utah (B)
 Utah Construction Co., 142 E. 3d, So., Box
 1590, Salt Lake City 10, Utah (B-H-Hvy-
 RR)
 Vincent-Peterson Co., 614 S. 3d, W., Salt
 Lake City 1, Utah (B)
 Walker, J. B. & R. E., 21 S. 10 West St., Salt
 Lake City 4, Utah (H-Hvy)
 Waterfall Constr. Co., 1685 Wall Ave., Ogden,
 Utah (H-Hvy)
 Wheeler & Tempest, 2212 S. W. Temple, Salt
 Lake City 1, Utah (H-Hvy)
 Wheelwright Constr. Co., 2300 East Ave.,
 P. O. Box 109, Ogden, Utah (H)
 Whiting, Floyd S., P. O. Box 158, Murray,
 Utah (H-Hvy-RR)
 Whiting & Haymond, 250 W. 2d, No., Spring-
 ville, Utah (H-Hvy-RR)
 Whitmeyer, Geo. A., & Sons Co., 2759 Grant
 Ave., P. O. Box 856, Ogden, Utah (B)
 Witt Constr. Co., P. O. Box 101, Provo,
 Utah (B)
 Young, L. A., Constr. Co., Richfield, Utah
 (H)
 Young, Perce, Bldg. Constr., 2750 S. Main
 St., Salt Lake City 15, Utah (B)
 Young & Smith Constr. Co., 306 Beason
 Bldg., Salt Lake City 5, Utah (H)

45. VIRGINIA

(a) VIRGINIA BRANCH

President—W. C. English, English
 Constr. Co., Altavista, Va.
Executive Secretary—Herbert W.
 O'Grady, Hotel King Carter, Rich-
 mond 19, Va.
Telephone: 2-9261

Adams & Tate Constr. Co., 2725 Roanoke
 Ave., P. O. Box 60, Roanoke, Va. (H)
 Barger, Chas. W., Jr., P. O. Box 778, Lex-
 ington, Va. (B)
 Baughan Constr. Co., Inc., Luray, Va. (B)
 Blackwell Engr. Co., Warrenton, Va. (B-H)
 Bles & Muns Constr. Co., Box 268, Rt. 2,
 McLean, Va. (Hvy)
 Bowerman Bros., P. O. Box 232, Berryville,
 Va. (B-Hvy)
 Bowles, E. G., 1705 Brook Rd., Richmond,
 Va. (Hvy)
 Burton, J. E., 220 Webster St., South Bos-
 ton, Va. (B)
 Carney, Jas. A., 522 W. 25th St., Norfolk 8,
 Va. (B)
 Carpenter Constr. Co., 700 Bank of Com-
 merce Bldg., Norfolk 10, Va. (Hvy)
 Carter-Hassell Constr. Co., Waco St. & Naval
 Base Rd., P. O. Box 9645, Norfolk 5,
 Va. (B)
 Castle Constr. Co., Grottoes, Va. (B)
 Coleman Constr. Co., 800 Franklin St.,
 Lynchburg, Va. (B)

Conquest, Moncure & Dunn, Inc., 208 E.
 Cary St., Richmond 19, Va. (B-Hvy)
 Corde & Starke, 18 S. 1st St., P. O. Box
 574, Richmond 5, Va. (B)
 Culpeper Bldg. & Supply Corp., Box 509,
 Culpeper, Va. (B)
 Daniel, John W., & Co., Inc., P. O. Box 458,
 Danville, Va. (B)
 Davenport, A. W., & Assos., Inc., 3122 W.
 Clay St., Richmond 21, Va. (B-Hvy)
 DeLashmutt Bros., Inc., 1130 S. George
 Mason Dr., Arlington, Va. (H-Hvy-RR)
 Denny, J. B., Jr., Box 6004, Norfolk, Va.
 (B)
 Doyle & Russell, Central National Bank
 Bldg., Richmond 19, Va. (B)
 Endebrock-White Co., 9300 Warwick Rd.,
 Box 205, Hilton Village, Va. (B)
 English Constr. Co., Altavista, Va. (B)
 Ferguson Corp., P. O. Box 480, Hampton,
 Va. (B)
 Fuqua, Fred B., 202 Krise Bldg., Lynchburg,
 Va. (B)
 Graham Bros., 906 Southern States Bldg.,
 P. O. Box 423, Richmond, Va. (B)
 Graham, Harry B., Co., 702 National Bank
 Bldg., P. O. Box 630, Charlottesville,
 Va. (B)
 Gresham, E. T., Co., Inc., P. O. Box 1077,
 Norfolk 1, Va. (Hvy)
 Hall, W. A., & Co., Inc., 255 Monticello Ar-
 cade, Norfolk 10, Va. (B)
 Hancock, C. W., & Sons, Inc., 1605 Allied
 Arts Bldg., Lynchburg, Va. (B)
 Harwell, Edw. E., Constr. Co., Orange,
 Va. (B)
 Houska, J. R., Co., Inc., 1100 Billings St.,
 P. O. Box 598, Norfolk 1, Va. (B)
 Howard-Mitchell Constr. Co., P. O. Box
 1433, Richmond 20, Va. (B-Hvy)
 Hoy, L. J., 507 Brackenridge Ave., Norfolk
 5, Va. (B)
 Hudgins, M. S., RFD #3, Box 136, Roanoke,
 Va. (H-Hvy-RR)
 Ivy Constr. Corp., P. O. Box 139, Charlottes-
 ville, Va. (B)
 Kea, Silas S., & Sons, Box 137, Ivor, Va.
 (B)
 Laburnum Constr. Corp., Box 1234, Rich-
 mond 9, Va. (B)
 Lang Constr. Co., Inc., 21 S. King St., Hamp-
 ton, Va. (B-Hvy)
 Laporte, J. A., Inc., 1101 Wilson Blvd., P. O.
 Box 309, Arlington, Va. (H-Hvy)
 Lee, R. E., & Son, Inc., P. O. Box 1188,
 Charlottesville, Va. (B)
 Lockwood, C. W., & Son, 203 Porter St.,
 Hampton, Va. (B)
 Magann, W. F., Corp., 2420 High St., Ports-
 mouth, Va. (Hvy)
 Marquis, Robt. R., 2229 County St., Ports-
 mouth, Va. (B)
 Martin Bros. Contrs., Inc., 29 Kirk Ave., W.,
 P. O. Box 433, Roanoke, Va. (B)
 Mathers, J. S., Inc., 201 S. Wayne Ave.,
 Waynesboro, Va. (B)
 McDevitt & Street Company, 505 Builders
 Bldg., Box 1847, Charlotte 1, N. C.
 (B-H-Hvy)
 Mills, Ralph E., Co., P. O. Box 513, Salem,
 Va. (H-Hvy)

Milner Constr. Co., 2508 Hermitage Rd.,
 Richmond, Va. (B)
 Parker, O. E., & Co., Inc., 416 W. Main St.,
 Covington, Va. (B)
 Parrott, B. F., & Co., Inc., 811 Boxley Bldg.,
 P. O. Box 1791, Roanoke 8, Va. (B)
 Perry Engr. Co., P. O. Box 298, Winchester,
 Va. (Hvy)
 Pettyjohn, John P., & Co., 212 8th St., Lynch-
 burg, Va. (B-RR)
 Porter, Henry D., & Co., Forehand Bldg.,
 803 Church St., P. O. Box 981, Lynch-
 burg, Va. (B)
 Reid & Hope, 153 N. Main St., P. O. Box
 294, Suffolk, Va. (B)
 Ross, John N., 5 Raleigh Ct. Apts., Char-
 lottesville, Va. (B)
 Sawyer Constr. Co., 300 Cherokee Rd.,
 Hampton, Va. (B-Hvy)
 Scott, W. H., Inc., P. O. Drawer 418, Frank-
 lin, Va. (H)
 Shockey, Howard, & Sons, Inc., P. O. Box
 767, Winchester, Va. (B)
 Showalter, F. L., Inc., Box 623, 1601 Allied
 Arts Bldg., Lynchburg, Va. (B-Hvy)
 Simpson, Eugene, & Bro., 300 Montgomery
 St., Alexandria, Va. (B)
 Sorber, L. S., & Co., Rt. 3, Vienna, Va.
 (Hvy)
 States Constr. Co., Inc., 3000 Warwick Ave.,
 P. O. Box 664, Newport News, Va. (B-
 Hvy)
 Thornton Constr. Co., Inc., 2106 N. Hamil-
 ton St., P. O. Box 1Q, Richmond, Va.
 (B)
 Tidewater Construction Corp., P. O. Box 57,
 Norfolk, Va. (B-H-Hvy-RR)
 Tuck & Malpass, Inc., 1409 E. Indian River
 Rd., Norfolk 6, Va. (H-Hvy-RR)
 Turner, J. M., & Co., Inc., P. O. Box 1848,
 Roanoke, Va. (B)
 van Laer, Edw., Inc., 705 National Bank
 Bldg., Charlottesville, Va. (B)
 Virginia Engineering Co., Inc., 80 29th St.,
 Newport News, Va. (B-H-Hvy-RR)
 Wattinger, R. H., 405-A E. Franklin St.,
 P. O. Box 484, Richmond, Va. (B)
 Wilson Constr. Corp., P. O. Box 1035, Rad-
 ford, Va. (B)
 Wise Contr. Co., P. O. Box 547, Richmond
 4, Va. (B)

46. WASHINGTON

(a) MOUNTAIN PACIFIC CHAPTER

President—Don L. Cooney, Don L.
 Cooney, Inc., 2928 Fuhrman Ave.,
 Seattle 2, Wash.
Secretary-Manager—W. H. Landaas, 219
 Benjamin Franklin Hotel, Seattle 1,
 Wash.
Telephone: Seneca 0026

Ace Constr. Co., 7510 Roosevelt Way, Seattle
 5, Wash. (Hvy)
 Alexander, John E., Vashon, Wash. (Hvy)
 American Pile Driving Co., Inc., Pier 2,
 Everett, Wash. (Hvy)
 Anderson, P. J., & Sons, 13501 Aurora Ave.,
 Seattle 33, Wash. (H-Hvy)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

WASHINGTON—Continued

- Argentieri & Colarossi, 1819 Weller, Seattle 44, Wash. (Hvy)
- Associated Sand & Gravel Co., 2508 Colby Ave., Everett, Wash. (H-Hvy)
- Atkinson, Guy F., Co., 341 Skinner Bldg., Seattle 1, Wash. (B-H-Hvy-RR)
- Austin, Robt. W., 3030 28th Ave., W., Seattle 99, Wash. (H-Hvy)
- Badraun, J. J., 109 N. 122d St., Seattle 33, Wash. (Hvy-RR)
- Bay Constr., Inc., 1762 Airport Way at Holgate, Seattle 4, Wash. (H-Hvy-RR)
- Bellevue Constr. Co., Box 111, Bellevue, Wash. (H-Hvy)
- Benson-Montin, Inc., 240 Central Bldg., Seattle 4, Wash. (Hvy)
- Birch, S., & Sons Constr. Co., 208 Central Bldg., Seattle 4, Wash. (B-H-Hvy-RR)
- Boespflug, J. C., Constr. Co., 1912 4th Ave., So., Seattle 4, Wash. (B-H-Hvy)
- Brady Constr. Co., 707 Spokane St., Seattle 4, Wash. (B-Hvy)
- Butler Constr. & Engr. Co., 3419 13th Ave., S. W., Seattle 4, Wash. (B-H-Hvy-RR)
- C. & E. Constr. Co., Inc., 2002 Rudkin Rd., Yakima, Wash. (H-Hvy)
- Cascade Contrs., Inc., Box 4056, Interbay Sta., Seattle 99, Wash. (Hvy-RR)
- Columbia Asphalt Paving Co., 206 Masonic Temple Bldg., Yakima, Wash. (H)
- Cooney, Don L., Inc., 2828 Fuhrman Ave., Seattle 2, Wash. (Hvy)
- Dahlberg, S. A., 9102 N. Mercer Way, #60, Mercer Island, Wash. (Hvy)
- Dawson Constr. Co., P. O. Box 2500, Ketchikan, Alaska (H-Hvy)
- Diesel Oil Sales Co., 2155 Northlake Ave., Seattle 3, Wash. (H)
- Doolittle Constr. Co., 510 Adams St., Seattle 8, Wash. (H)
- Elterich, Louis, Co., P. O. Box 868, Port Angeles, Wash. (H-Hvy)
- Erickson Paving Co., Rt. 2, Box 2155, Bellevue, Wash. (H-Hvy-RR)
- Excavators, Inc., 5756 29th, N. E., Seattle 5, Wash. (H-Hvy)
- Fiorito Bros., 1100 Leary Way, Seattle 7, Wash. (H-Hvy)
- Fiorito, N., Co., 844 W. 48th St., Seattle 7, Wash. (H-Hvy)
- Funderburk Constr. Co., Depoe Bay, Oreg. (H-Hvy)
- General Construction Company, P. O. Box 3244, Seattle 14, Wash. (B-H-Hvy-RR)
- Goetz & Brennan, Seaboard Bldg., Rm. 914, Seattle 1, Wash. (H-Hvy)
- Goodfellow Bros., Inc., Box 1337, Wenatchee, Wash. (H-Hvy-RR)
- Govan, Hugh, Box 308, Port Angeles, Wash. (H)
- Grays Harbor Constr. Co., P. O. Box 743, Aberdeen, Wash. (B-H)
- Gredvig, Maurice, P. O. Box 355, Yakima, Wash. (H)
- Grove Shepherd Wilson & Kruge, Inc., 120 6th Ave., No., Seattle 9, Wash. (B-H-Hvy)
- Halleran, W. J., & Sons, 416 Virginia St., Seattle 1, Wash. (H)
- Hawkins & Armstrong, 16274 39th, N. E., Seattle 55, Wash. (B-H)
- Hoagland-Findlay Engr. Co., Rm. 327, Lyon Bldg., 607 3d Ave., Seattle, Wash. (Hvy)
- Hoback, L. E., 2420 E. Grand Ave., Everett, Wash. (H-Hvy)
- Hopper Co., 1200 Westlake Ave., No., Seattle 9, Wash. (B-Hvy)
- Jarvis, Paul, Inc., 1070 W. Ewing St., P. O. Box 4001, Interbay Sta., Seattle 99, Wash. (H-Hvy)
- Johnson, A. W., Co., Inc., 208 E. Pacific St., Seattle 5, Wash. (B-H)
- Johnson & Duke, Inc., 2815 Grand Ave., Everett, Wash. (H-Hvy)
- Jussel, Joe A., Dellesta Park, Bellingham, Wash. (H)
- Kaeser, Harold, Co., 3212 Hunter Blvd., Seattle 44, Wash. (H-Hvy)
- Kathman, Herman, 12054 23d, N. E., Seattle 55, Wash. (H-Hvy)
- Kiewit, Peter, Sons' Co., 1300 Aloha St., Seattle 9, Wash. (B-H-Hvy)
- Knowles, John B., 1040 Monroe St., Wenatchee, Wash. (H-Hvy)
- Lundberg, Joe, Constr. Co., 3516 Airport Way, Seattle 4, Wash. (Hvy)
- M-B Constr. Co., 1019 Lloyd Bldg., Seattle 1, Wash. (Hvy)
- MacRae Bros., 2733 4th Ave., So., Seattle 4, Wash. (B-H)
- Malaspina, Matt, & Co., 1901 23d Ave., So., Seattle 44, Wash. (Hvy)
- McCray Marine Constr. Co., 2370 Fairview, No., Seattle 2, Wash. (Hvy)
- McKellar, Everett, Box 965, Chelan, Wash. (H)
- Miller, C. L., Constr. Co., 3238 37th Ave., S. W., Seattle 6, Wash. (H-Hvy)
- Misco, Inc., Pier 50, Seattle 4, Wash. (Hvy)
- Monroe Constr. Co., W. Main & Blakely Sts., Monroe, Wash. (H-Hvy)
- Morrison Constr. Co., 512 21st, So., Seattle 4, Wash. (H-Hvy)
- Morrison-Knudsen Co., Inc., 603 Hoge Bldg., Seattle 4, Wash. (B-H-Hvy-RR)
- Moss, R. L., Constr. Co., P. O. Box 37, Zenith, Wash. (H-Hvy)
- Munter, M. P., Co., 1427 Joseph Vance Bldg., Seattle 1, Wash. (Hvy)
- Newburn, L. L., 6262 14th Ave., So., Seattle 8, Wash. (H-Hvy)
- Nolte, Geo. V., & Co., 3048 Marine Dr., Bellingham, Wash. (H-Hvy)
- Norris, Guy J., 1425 4th Ave., Seattle 1, Wash. (H)
- North Seattle Constr. Co., 13061 37th, N. E., Seattle 55, Wash. (Hvy)
- Northwest Constr. Co., 3950 6th Ave., N. W., Seattle 7, Wash. (H-Hvy)
- Northwest Precote, Inc., 7343 E. Marginal Way, Seattle 8, Wash. (H-Hvy)
- Nygren, David, 309 Lloyd Bldg., Seattle 1, Wash. (H)
- Osberg Constr. Co., 1132 N. 128, Seattle 33, Wash. (H-Hvy-RR)
- Pacific Constr. Co., 3002 16th Ave., So., Seattle 44, Wash. (H-Hvy)
- Patricelli, John, 1534 32d Ave., So., Seattle 44, Wash. (H-Hvy)
- Phillips, Alton V., 1400 W. Nickerson, Seattle 99, Wash. (B-H-Hvy)
- Pieler Constr. Co., 705 Shafer Bldg., Seattle 1, Wash. (H-Hvy)
- Prepakt Concrete Company, The, 208 Columbia St., Seattle 4, Wash. (Hvy)
- Puget Sound Bridge & Dredg. Co., 2929 16th Ave., S. W., Seattle 4, Wash. (H-Hvy)
- Romano, Toney, Co., 1823 Dearborn St., Seattle 4, Wash. (Hvy)
- Rumsey & Co., 3821 Airport Way, Seattle 8, Wash. (H-Hvy)
- Russell-Gillett Co., P. O. Box 5, Cle Elum, Wash. (H)
- Scalzo, Thos., Co., 3211 Airport Way, Seattle 4, Wash. (H-Hvy-RR)
- Scarsella Bros., 14618 22d Ave., So., Seattle 88, Wash. (Hvy)
- Scheumann & Johnson, 1001 Lloyd Bldg., Seattle 1, Wash. (H-Hvy)
- Seattle Contr. Co., 101 Nickerson St., Seattle 9, Wash. (H-Hvy)
- State Constr. Co., 1245 Poplar Pl., Seattle 44, Wash. (H-Hvy)
- Stevens, A. W., Contr. Co., P. O. Box 276, Burlington, Wash. (H-Hvy)
- Stoen Constr. Co., 2210 E. 95th St., Seattle 5, Wash. (H-Hvy)
- Superior Constr. Co., 4610 37th Ave., S. W., Seattle 6, Wash. (H-Hvy)
- Surace, J. P., Constr. Co., 3238 Seaview Ave., Seattle 7, Wash. (H-Hvy-RR)
- Sussex, R. H., 1744 State St., P. O. Box 1, Bellingham, Wash. (H-Hvy)
- Templeton, E. J., 2924 Lombard, Everett, Wash. (H-Hvy)
- Thorburn & Logozo, 4608 36th, S. W., Seattle 6, Wash. (B-H-Hvy)
- Traverso, T. W., 3006 S. 148th, Seattle 88, Wash. (H-Hvy)
- Troxell, J. A., 9449 N. E. Lake Washington Blvd., Bellevue, Wash. (Hvy)
- Utility Contrs., 1043 E. 90th St., Seattle 5, Wash. (Hvy)
- Valley Constr. Co., 7722 Rainier Ave., Seattle 8, Wash. (Hvy)
- Washington Asphalt Co., 309 W. 39th, Seattle 7, Wash. (H)
- Welcome, J. J., Constr. Co., 10206 Evanston Ave., Seattle 33, Wash. (H-Hvy)
- Western Asphalt Co., 309 W. 39th, Seattle 7, Wash. (H)
- Wilder, C. V., Co., 2006 State St., Bellingham, Wash. (H-Hvy)
- Wilder, F. E., Rt. 11, Box 147, Olympia, Wash. (Hvy)

(b) SEATTLE CHAPTER

President—W. D. Brown, Howard S. Wright & Co., Inc., 414 Pontius Ave., Box 3106, Seattle 14, Wash.

Manager—E. B. Hickok, 215 W. Harrison St., Seattle 99, Wash.

Telephone: AL-5433

- Anderson, Allen R., 3819 10th, N. E., Seattle 5, Wash. (B)
- Armstrong & Armstrong, P. O. Box 59, Wenatchee, Wash. (B)
- Atherton Constr. Co., 1101 Terminal Sales Bldg., Seattle 1, Wash. (B-Hvy)
- Baldwin, L. E., Inc., 1103 N. 36th, Seattle 3, Wash. (B)
- Barrow & Shaffer Constr. Co., Colby Bldg., Everett, Wash. (B-Hvy)
- Bartram, Wilmer W., P. O. Box 502, Grandview, Wash. (B)
- Baugh Co., The, 403 3d Ave., W., Seattle 99, Wash. (B)

A.G.C. DIRECTORY

WASHINGTON—Continued

- Bennett-Campbell, Inc., 815 Seaboard Bldg., Seattle 1, Wash. (B-Hvy)
 Boen-Koon Constr. Co., 3647 Stone Way, Seattle 3, Wash. (B-Hvy)
 Boespflug, J. C., Constr. Co., 1912 4th Ave., So., Seattle 4, Wash. (B-Hvy)
 Brazier Constr. Co., 309 Pontius, Seattle 9, Wash. (B)
 Buchanan, T. N., Constr. Co., 335 W. 48th St., Seattle 7, Wash. (B-Hvy)
 Cawdrey & Vemo, 3501 Fremont Ave., Seattle 3, Wash. (B)
 Ceis, Philip L., 3012 65th, S. W., Seattle 6, Wash. (B)
 Chisholm, Ralph, Constr. Co., 1750 State St., Box 1073, Bellingham, Wash. (B)
 Clark, W. G., Co., 408 Aurora Ave., Seattle 9, Wash. (B)
 Dahlgren Constr. Co., 1700 21st Ave., So., Seattle 44, Wash. (B-Hvy)
 Daniels, O. B., & Son, 200 3d Ave., No., Seattle 9, Wash. (B)
 Eiford Constr. Co., 218 Unity St., Box 357, Bellingham, Wash. (B)
 Farwest Constr. Co., 1305 Republican St., Seattle 9, Wash. (B)
 Ferguson, H. S., Co., 4627 Union Bay Pl., Seattle 5, Wash. (B)
 Gaasland Co., Inc., 1155 Ellis St., Bellingham, Wash. (B-Hvy)
 General Construction Company, P. O. Box 3244, 3840 Iowa Ave., Seattle 14, Wash. (B-Hvy)
 Hainsworth Constr. Co., 3028 Western Ave., Seattle 1, Wash. (B)
 Hall-Atwater Co., 605 13th Ave., Seattle 22, Wash. (B)
 Halvorson, H., Inc., 20054 Pacific Hwy. So., Seattle 88, Wash. (B-Hvy)
 Henrikson Constr. Co., 4025 Stone Way, Seattle 3, Wash. (B)
 Jentoft & Forbes, 910 W. 45th St., Seattle 7, Wash. (B)
 Kuney-Johnson Co., 235 9th Ave., No., Seattle 9, Wash. (B)
 Larsen Constr. Co., 468 Colman Bldg., Seattle 4, Wash. (Hvy)
 Larson, Ernest, 2309 24th St., Everett, Wash. (B)
 Lease & Leigland, 1501 N. 35th St., Seattle 3, Wash. (B)
 Manson Constr. & Engr. Co., 821 Alaskan Way, Seattle 4, Wash. (Hvy)
 McAbee, F. R., Inc., 921 Elliott Ave., W., Seattle 99, Wash. (B)
 Mortensen, Nelse, & Co., Inc., 1021 Westlake, No., Seattle 9, Wash. (B)
 Mowat, A. F., Constr. Co., 2833 Eastlake Ave., Seattle 2, Wash. (B)
 Ness Constr. Co., 1125 W. 53rd, Seattle 7, Wash. (B)
 Newland Constr. Co., P. O. Box 230, Everett, Wash. (B)
 Odegard Constr. Co., 37th Off Broadway, P. O. Box 735, Everett, Wash. (B)
 Puget Sound Bridge & Dredg. Co., 2929 16th Ave., S. W., Seattle 4, Wash. (B-Hvy)
 Sellen, John H., Constr. Co., 228 9th, No., Seattle 9, Wash. (B)
 Shuck, E. F., 535 Pontius Ave., Seattle 9, Wash. (B)
 Slate, W. A., 8225 17th Ave., N. E., Seattle 5, Wash. (B)
 Sound Constr. & Engr. Co., 1300 Aloha St., Seattle 9, Wash. (B)
 Strand & Sons, 3939 University Way, Seattle 5, Wash. (B)
 Teufel, Geo. E., Co., 4451 White-Henry-Stuart Bldg., Seattle 1, Wash. (B-Hvy)
 Turnbull, B. F., Inc., 4351 Leary Way, Seattle 7, Wash. (B)
 Turnquist, O. E., Constr. Co., 1305 Republican, Seattle 9, Wash. (B)
 Valle-Sommers Constr. Co., Box 4096, Interbay Sta., 407 3d Ave., W., Seattle 99, Wash. (B)
 Vandivort Constr. Co., Box 1647, McKittrick St., Wenatchee, Wash. (B)
 Veale Constr. Co., 323 2d & Cherry Bldg., Seattle 4, Wash. (B)
 Walser, Don, P. O. Box 5, Everett, Wash. (B)
 Warrack, J. B., Co., 400 2d Ave., W., Seattle 99, Wash. (B)
 Welden, O. E., 2320 Nob Hill Ave., Seattle 9, Wash. (B-Hvy)
 White, Noble W., Pier 65, Seattle 1, Wash. (B)
 Wick Constr. Co., 215 W. 35th St., Seattle 7, Wash. (B)
 Wright, Howard S., & Co., Inc., 414 Pontius Ave., Box 3106, Seattle 14, Wash. (B)

(c) SPOKANE CHAPTER

President—Dewey J. Murrow, F. R. Hewett & Co., P. O. Box 46, Parkwater, Wash.

Secretary-Treasurer—Verne D. Warren, S. 102 Stevens St., Spokane 8, Wash.

Telephone: Main 6822

- Anderson, J. S., Constr. Co., 2124 N. Waterworks St., Spokane, Wash. (H)
 Atkinson, Guy F., Co., 5315 N. E. 101st Ave., P. O. Box 7528, Portland 20, Oreg. (H)
 Bair, Roy L., & Co., W. 1220 Ide Ave., Spokane, Wash. (B-Hvy)
 Baulne, Frank, P. O. Box 84, Yardley, Wash. (H)
 Bryant, J. Arlie, 528 Hutton Bldg., Spokane, Wash. (H)
 C. & E. Constr. Co., Inc., 2002 Rudkin Rd., Yakima, Wash. (H)
 Carbon Bros., 3430 N. Cook St., P. O. Box 5025, Sta. C, Spokane 13, Wash. (H)
 Castle, M. F., 10503 N. Division, Spokane, Wash. (H)
 Chief Joseph Bdrs., Bridgeport, Wash. (H)
 Clifton & Applegate Co., Yardley, Wash. (H)
 Collins, J. H., & Co., Walla Walla, Wash. (H)
 Crick, Jas., & Sons, 210 Cliff Dr., Spokane, Wash. (H)
 Curtis Gravel Co., P. O. Box 106, Spokane, Wash. (H)
 D & H Constr. Co., Box 942, Kennewick, Wash. (H)
 DeAtley, F. H., & Co., Lewiston, Idaho (H)
 Degerstrom, N. A., E. 15 32d Ave., Spokane, Wash. (H)
 Ellis Constr. Co., Ephrata, Wash. (H)
 Gibson & Roberts, Box 200, Yardley, Wash. (H)
 Grant Constr. Co., P. O. Box 351, Coeur d'Alene, Idaho (H)
 Grendahl, H. C., N. 2128 Waterworks, Spokane, Wash. (H)
 Hagman, Henry, Cashmere, Wash. (H)
 Halvorson, H., Inc., E. 4324 Trent Ave., Spokane 15, Wash. (B-H)
 Hansen & Parr Constr. Co., 1103 N. Calispel, Spokane, Wash. (H)
 Hardison, J. W., P. O. Box 48, Yakima, Wash. (H)
 Hewett, F. R., & Co., P. O. Box 46, Parkwater, Wash. (H)
 Hohner, Carl, E. 6203 Sharp, Spokane, Wash. (B)
 Inland Asphalt Co., 10th & Havana Sts., Spokane, Wash. (H)
 Kaiser Engrs., Box 368, Richland, Wash. (H)
 Kiewit, Peter, Sons' Co., P. O. Box 491, Longview, Wash. (H)
 Konen, J. F., Constr. Co., 522 Park St., Lewiston, Idaho (B-H)
 Kuney, Max J., Co., 120 N. Ralph St., Spokane 15, Wash. (H-Hvy)
 Long Constr. Co., Box 1291, Billings, Mont. (H)
 Materne Bros., W. 1204 Francis Ave., Spokane, Wash. (H)
 McAtee & Heather, P. O. Box 4083, Sta. B, Spokane 31, Wash. (H)
 McCartney, Birch, Veradale, Wash. (H)
 Meyers, Walter, Hyde Bldg., Spokane, Wash. (B)
 Morin, S. G., & Sons, S. 309 Bernard St., Spokane, Wash. (B)
 Murphy Bros., 3728 E. Broadway, Spokane 10, Wash. (H)
 Oneal, C. E., Co., Inc., Box 268, Ellensburg, Wash. (H-Hvy)
 Power, Chas. A., Box 4027, Spokane, Wash. (H-Hvy)
 Rogers Constr. Co., 11760 N. E. Glisan St., Portland, Oreg. (H-Hvy)
 S & F Constr. Co., Rt. 1, Spokane, Wash. (H)
 Sand Kay Constr. Co., Ephrata, Wash. (H)
 Sather & Sons, Yardley, Wash. (H)
 Standard Asphalt Paving Co., N. 119 Post, Spokane 8, Wash. (H)
 Stone & Thaut, 1001 W. Ide Ave., Spokane, Wash. (H)
 Straalsund-Thesman, Box 488, Newport, Wash. (H)
 Sullivan, D. A., Parkwater, Wash. (H)
 Weist, Ray, P. O. Box 191, Yakima, Wash. (H)
 Weller Bros., N. 633 Madelia St., Spokane, Wash. (H)
 Whitley, D. A., Co., 2417 N. Division St., Spokane 13, Wash. (H)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

WASHINGTON—Continued

(d) TACOMA CHAPTER

President—L. B. Macdonald, Macdonald Bldg. Co., 1517 S. Tacoma Way, Tacoma, Wash.

Manager—C. W. Todd, 452 St. Helens Ave., Tacoma 2, Wash.
Telephone: Broadway 2297

Anderson Bridge Constr. Co., 4130 S. Adams, Tacoma, Wash. (H-Hvy)
Anderson Constr. Co., 115 S. 9th St., Tacoma, Wash. (B)
Asphalt Paving & Engr. Co., Box 356, Tacoma 9, Wash. (H-Hvy)
Atkinson, Guy F., Co., 342 Skinner Bldg., Seattle 1, Wash. (H-Hvy)
Barr, G. W., Constr. Co., 8824 John Dower Rd., S. W., Tacoma, Wash. (B)
Bergesen, Sam, 5402 San Francisco, S. W., Tacoma 9, Wash. (B)
Bona Fide Bldrs., Inc., 2430 E. 11th, P. O. Box 1254, Tacoma, Wash. (B)
Bonnell Constr. Co., 760½ Commerce St., Tacoma, Wash. (B)
Briggs Constr. Co., 5119 N. 31st, Tacoma 22, Wash. (B)
Coast Contrs., 1624 S. Tacoma Ave., Tacoma, Wash. (Hvy)
Construction Engrs. & Contrs., 801 Port of Tacoma Rd., Tacoma, Wash. (B-Hvy)
Cooney, Don L., Inc., 2318 S. Tacoma Way, Tacoma, Wash. (Hvy)
Dickson, Lige, Co., 3315 S. Pine St., Tacoma, Wash. (Hvy)
Earley, Roy T., Co., 321 Middle Waterway, P. O. Box 1591, Tacoma, Wash. (B-Hvy)
Freigang Constr. Co., 10310 Gravelly Lake Dr., Tacoma, Wash. (B)
Goettling, E., & Sons, 2911 S. Chandler, Tacoma, Wash. (B)
Graham, J. F., Rt. 7, Box 171, Tacoma, Wash. (B)
Hall Constr. Co., 9605 DeKoven Dr., S. W., Tacoma 9, Wash. (B)
Harrison Bros. Co., The, 225 Wakefield Dr., Tacoma, Wash. (H-Hvy)
Hart Constr. Co., 3536 E. 11th, Tacoma, Wash. (B-Hvy)
Homann, A. G., P. O. Box 37, Lacey, Wash. (B)
Industrial Engrs. & Contrs., Inc., 711 Middle Waterway, Tacoma, Wash. (Hvy)
Jones, Dolph, 2213 N. Proctor, Tacoma, Wash. (B)
Kelly, Ray R., & Co., 3111 S. Pine St., Tacoma, Wash. (B-Hvy)
Kendall Constr. Co., 3211 Center St., Tacoma, Wash. (Hvy)
Ketner Bros., 419 St. Helens Ave., Tacoma, Wash. (B)
Larson, O. F., & Son, Pacific Savings Bldg., Tacoma, Wash. (B-Hvy)
Macdonald Bldg. Co., 1517 S. Tacoma Way, Tacoma, Wash. (B)
McPhail Engr., 3720 Center St., Tacoma, Wash. (Hvy)
Milone & Tucci, Inc., 3215 S. M. St., Tacoma, Wash. (Hvy)
Mock, Thos. M., 1938 S. Tacoma Ave., Tacoma 3, Wash. (B)
Ostruske-Murphy, Inc., 2907 S. A. St., Tacoma, Wash. (B)

Pacific Sand & Gravel Co., P. O. Box 628, Centralia, Wash. (H-Hvy)
Paine-Gallucci, Inc., 1521 S. Grant St., Tacoma, Wash. (H-Hvy)
Seines, C. S., Constr. Co., Inc., P. O. Box 537, Chehalis, Wash. (B)
Sellen, John H., Constr. Co., 228 9th, No., Seattle 9, Wash. (B)
Shotwell, J. D., Co., 3113 S. Pine St., Tacoma 3, Wash. (H-Hvy)
Sjoberg Bros., 3411 S. Pear St., Olympia, Wash. (H-Hvy)
Standard Constr. Co., 315 E. 25th St., Tacoma, Wash. (B)
Strong & Macdonald, Inc., 4045 Ruston Way, Tacoma, Wash. (H-Hvy)
Tacoma Constr. & Engr. Co., 1123 Pontacoma Rd., Tacoma, Wash. (B)
Utility Constr. Co., 4224 N. Mason, Tacoma 3, Wash. (B-H-Hvy)
Warter Constr. Co., 7829 Pacific Ave., Tacoma, Wash. (B)
Woodworth & Co., Inc., 1200 E. D St., Tacoma, Wash. (H-Hvy)
Wright, Howard S., & Co., Inc., Box 3106, 414 Pontius Ave., Seattle 14, Wash. (B)

(e) EASTERN WASHINGTON BUILDERS CHAPTER

President—Gus J. Bouten, Gus J. Bouten Constr. Co., N. 627 Napa, Spokane, Wash.

Executive Secretary—C. E. Hively, S. 18 Monroe St., Spokane 4, Wash.
Telephone: Madison 8525

AAA Constr. Co., N. 739 Helena, Spokane, Wash. (B)
Anderson-Hall Co., 4304 E. Mission, Spokane 62, Wash. (B)
Anderson, Ray, Constr. Co., Box 1304, Ephrata, Wash. (B)
Bair, Roy L., Co., W. 1220 Ide Ave., Spokane, Wash. (B)
Bengel, A. M., 1029 W. Bridge, Spokane, Wash. (B)
Bouten, Gus J., Constr. Co., N. 627 Napa, Spokane, Wash. (B)
Bushoom & Rauh, 601 N. Cedar, Spokane, Wash. (B)
Cherf Bros. Constr., Ephrata, Wash. (B)
Commercial Bldrs., Inc., Box 302, Moscow, Idaho (B-H-Hvy-RR)
George, Henry, & Sons, Hutton Bldg., Spokane, Wash. (B)
Halvorson, H., Inc., E. 4324 Trent Ave., Spokane 15, Wash. (B)
Haynes, E. R., W. 2028 Sinto, Spokane, Wash. (B)
Hazen & Clark, N. 1101 Howard, Spokane, Wash. (B)
Hopkins, Lewis A., & Co., Box 1101, Yakima, Wash. (B)
Kenaston & Huntley, P. O. Box 144, Lewiston, Idaho (B)
L & S Constr. Co., Moses Lake, Wash. (B)
McInnis Constr. Co., Hutton Bldg., Spokane, Wash. (B)
Meyers, Walter, Hyde Bldg., Spokane, Wash. (B)
Plath, Eric E., N. 3430 Cook, Spokane, Wash. (B)
Ruud Constr. Co., 303 Peyton Bldg., Spokane, Wash. (B)

Sceva Constr. Co., N. 2928 Medelia, Spokane, Wash. (B)
Varnum, Walter, P. O. Box 983, Coeur d'Alene, Idaho (B)
Y & G Constr. Co., Box 996, Moses Lake, Wash. (B)

47. WEST VIRGINIA

(a) THE ASSOCIATED GENERAL CONTRACTORS OF WEST VIRGINIA, INC.

President—James M. Jarvis, Jarvis-Courtney Corp., P. O. Box 1746, Clarksburg, W. Va.

Executive Secretary—Eugene H. Brown, 403 National Bank of Commerce Bldg., Charleston, W. Va.
Telephone: 64-431

Abbitt, W. A., Co., No. 5 Monongalia St., Charleston, W. Va. (B)
Agnew Constr. Co., P. O. Box K, Roncove, W. Va. (H-Hvy-RR)
Agsten, H. B., Jr., 702 Pennsylvania Ave., Charleston 2, W. Va. (B)
Agsten, H. B., & Sons, Inc., United Carbon Bldg., P. O. Box 2707, Charleston 30, W. Va. (B)
Andersons', Inc., 1500 Pennsylvania Ave., Charleston, W. Va. (H)
Ankrom & Castin, 1040 Quincy St., Parkersburg, W. Va. (H-Hvy)
Asphalt Prods. Co., 650 W. Race St., Martinsburg, W. Va. (H)
Baker & Coombs, Inc., 319 Demain Ave., Box 732, Morgantown, W. Va. (B)
Boso & Ritchie, Inc., Ravenswood, W. Va. (H-Hvy-RR)
Bostic, A. A., & D. M., Box 326, Rupert, W. Va. (H)
Bowers & Chilton, Inc., 954 Montrose Dr., So., Charleston 3, W. Va. (B)
Browder, Earl T., Inc., 611 Pennsylvania Ave., St. Albans, W. Va. (B)
Byrum Constr. Co., The, 12th & Water Sts., Wheeling, W. Va. (B)
Charleston Concrete Floor Co., 703½ Pennsylvania Ave., Charleston 2, W. Va. (H-Hvy)
Coast, H. M., Inc., 2222 Warwood Ave., Wheeling, W. Va. (H-Hvy)
Coleman, L. S., Co., Inc., 209 1st National Bank Bldg., P. O. Box 189, St. Albans, W. Va. (H-Hvy-RR)
Condon-Cunningham Co., P. O. Box 65, Dunbar, W. Va. (H-Hvy-RR)
Consolidated Engr. Co., P. O. Box 409, Wheeling, W. Va. (Hvy)
Construction Service, Inc., Pullman Rd. at Southern R. R., Ludlow, Ky. (H-Hvy-RR)
Dowling Constr. Co., 510 4th St., Williams-town, W. Va. (B)
Dravo Corporation, The Contracting Division, Neville Island, Pittsburgh 25, Pa. (Hvy)
Ebeling, Robt. M., Constr. Co., P. O. Box 2182, 19 Simpson Ave., Elm Grove, Wheeling, W. Va. (B)
Edmir Constr. Co., Inc., 2300 Blackwell Dr., Charleston 1, W. Va. (B)
Ferguson & Edmondson Co., 412 Keystone Bldg., Pittsburgh 22, Pa. (B-H-Hvy-RR)

A.G.C. DIRECTORY

WEST VIRGINIA—Continued

Fisher, O. B., & Sons, P. O. Box 187, Logan, W. Va. (B)
 Forbes Constr. Co., Inc., 1022 1st Huntington National Bank Bldg., P. O. Box 1491, Huntington, W. Va. (H-Hvy-RR)
 G.A.V. Bldrs., Moundsville, W. Va. (B)
 Graham, W. E., & Sons, P. O. Box 268, Cleveland, N. C. (H)
 Harman Bros., Box 475, Grafton, W. Va. (B-H-Hvy)
 Harris, E. L., & Son, P. O. Box 2709, Charleston, W. Va. (B)
 Harrison Construction Company, 1101 Western Ave., Pittsburgh 33, Pa. (H-Hvy)
 Haslebach, Henry, & Sons, Inc., P. O. Box 1504, Clarksburg, W. Va. (B)
 Hayne Engr. Co., 122½ Capitol St., Charleston 1, W. Va. (Hvy)
 Hewitt, R. N., Corp., 703½ Pennsylvania Ave., Charleston, W. Va. (H-Hvy)
 Higginbotham, A. G., Co., Charleston National Bank Bldg., Charleston, W. Va. (B)
 Hill Co., Inc., 472 Central Ave., Oak Hill, W. Va. (B)
 Hune & Calvin, Box 362, Marietta, Ohio (H)
 Hutchinson, J. M., Sandyville, W. Va. (H-Hvy)
 Jarvis-Courtney Corp., P. O. Box 1746, Clarksburg, W. Va. (B)
 Jimison, C. H., & Sons, Box 2181, Huntington 18, W. Va. (B)
 Johnson, G. C., Co., P. O. Box 949, Welch, W. Va. (B)
 Kenhill Constr. Co., 307 Duffy St., P. O. Box 2772, Charleston, W. Va. (B)
 Kuhn Constr. Co., 18th Fl., Kanawha Valley Bank Bldg., Charleston 1, W. Va. (B)
 Lambert Constr. Co., 2735 5th Ave., P. O. Box 1626, Huntington, W. Va. (B-Hvy-RR)
 Lewis P. R., P. O. Box 1261, Huntington, W. Va. (B)
 Love, Inc., 510 49th St., S. E., Charleston 4, W. Va. (B)
 Lynch, Pugh & Corson, Inc., Box 664, Morgantown, W. Va. (B)
 Maxon Construction Company, Inc., 131 N. Dudlow St., Dayton 2, Ohio (H-Hvy-RR)
 Miller, W. Harley, 212 S. Queen St., Martinsburg, W. Va. (B)
 Mott Core Drilling Co., 830 8th Ave., Huntington, W. Va. (B-H-Hvy-RR)
 Mountain State Constr. Co., 5111½ MacCorkle Ave., S. W., South Charleston 3, W. Va. (H-Hvy)
 Neighborgall Constr. Co., Guaranty Bank Bldg., Huntington, W. Va. (B)
 Orange Constr. Co., 1640 4th Ave., Charleston, W. Va. (H-Hvy)
 Orders, W. R., & Son, 2405 Kanawha Terr., St. Albans, W. Va. (H-Hvy-RR)
 Parrott, B. F., & Co., Inc., 811 Boxley Bldg., P. O. Box 1791, Roanoke 8, Va. (B)
 Pellicione, D., & Co., West St. corner Lee Ave., Weirton, W. Va. (B)
 Permanent Bldrs. Inc., Ohio Ave., P. O. Box 348, Clarksburg, W. Va. (B)

Persun Constr. Co., 604 7th Ave., Rear, Huntington, W. Va. (B)
 Plate Constr. Co., Inc., 726 Jeanette St., Parkersburg, W. Va. (B)
 Robertson-Henry Co., P. O. Box 2078, Huntington, W. Va. (H-Hvy-RR)
 Schneider, H. W., 514 George St., Parkersburg, W. Va. (B)
 Seabright Constr. Co., 4201 Wood St., Wheeling, W. Va. (B)
 Shrum, Clyde M., P. O. Box 1294, Clarksburg, W. Va. (B)
 Shuttle, A., & Co., Inc., 203 Liberty Bldg., Jenkintown, Pa. (H-Hvy)
 Smith, Carl E., Sandyville, W. Va. (Hvy)
 Smith, W. D., Co., 2624 6th St., Charleston 2, W. Va. (B)
 Smithson Constr. Co., Inc., 204 Payne Bldg., P. O. Box 1946, Charleston, W. Va. (B)
 Sollitt Constr. Co., Inc., 301 S. Columbia St., South Bend 24, Ind. (B)
 Southeastern Constr. Co., Peoples Bldg., P. O. Box 727, Charleston, W. Va. (B)
 Stephens Constr. Co., 501 East St., Parkersburg, W. Va. (B)
 Stickley Bros., Inc., Box 631, Keyser, W. Va. (H)
 Sutton Co., Inc., P. O. Box 428, Sta. A, Radford, Va. (H-Hvy-RR)
 Swim, Inc., P. O. Box 788, Beckley, W. Va. (B)
 Thomas Co., Inc., P. O. Box 1773, Huntington 19, W. Va. (H-Hvy-RR)
 Tinney Drilling Co., 113 W. Main St., Grafton, W. Va. (H-Hvy-RR)
 Tri-State Asphalt Corp., P. O. Box 270, Wheeling, W. Va. (H)
 Vandegrift, John I., Co., The, 314 Liberty Trust Bldg., Cumberland, Md. (B)
 Vecellio & Grogan, P. O. Box 768, Beckley, W. Va. (H-Hvy-RR)
 Vecellio, Oscar, 130 Jefferson St., Beckley, W. Va. (H-Hvy)
 Vipperman Constr. Co., P. O. Box 1352, 209 S. Fayette St., Beckley, W. Va. (B)
 Weaver Crane & Trucking Co., Inc., 701 Atlas Bldg., P. O. Box 3123, Charleston 1, W. Va. (Hvy-RR)
 Weikel Constr. Co., Inc., The, Meyer Rd., R. R. #12, P. O. Box 1108, Fort Wayne, Ind. (H-Hvy)
 Wilson Bros., Inc., 3328 Emerson Ave., Parkersburg, W. Va. (B)

Bentley, Thos. H., & Son, Inc., 3131 W. Mill Rd., Milwaukee 9, Wis. (B-Hvy)
 Buchholz, Walter T., Inc., 1026 N. Jackson St., Milwaukee 2, Wis. (B)
 Carlson, Geo., Co., 4041 N. Montreal St., Milwaukee 9, Wis. (B-Hvy)
 Dahlman Constr. Co., P. O. Box 1184, Milwaukee 1, Wis. (B)
 Drescher Co., 4602 N. 20th St., Milwaukee 9, Wis. (B)
 Gebhard-Berghammer, Inc., 5420 W. State St., Milwaukee 8, Wis. (B-Hvy)
 Hunzinger Constr. Co., Sta. K, Milwaukee 10, Wis. (B-Hvy)
 Jansen, Jos. P., Co., 5376 N. Teutonia Ave., Milwaukee 9, Wis. (B)
 Klug & Smith Co., 4425 W. Mitchell St., Milwaukee 14, Wis. (B-Hvy)
 Knuth, E. C., & Co., 2919 W. Fond du Lac Ave., Milwaukee 10, Wis. (B-Hvy)
 Kroening Engr. Corp., 4500 W. Mitchell St., Milwaukee 14, Wis. (B-H)
 Lupinski, Inc., N. 1 & E. Capitol Dr., Milwaukee 12, Wis. (B-Hvy)
 Maier, Chas., & Son Co., 1643 N. 30th St., Milwaukee 8, Wis. (B)
 Oeffle, Walter W., Inc., 5345 N. Hopkins St., Milwaukee 9, Wis. (B-Hvy)
 Peters Constr. Co., 2640 N. Humboldt Ave., Milwaukee 12, Wis. (B)
 Schmitt, H., & Son, Inc., 930 E. Burleigh St., Milwaukee 12, Wis. (B-Hvy)
 Selzer-Ornst Co., 6222 W. State St., Wauwatosa 13, Wis. (B-Hvy)
 Siderits Constr. Co., 3617 N. 2 St., Milwaukee 12, Wis. (B)
 Siesel Constr. Co., 514 E. Ogden Ave., Milwaukee 2, Wis. (B-Hvy)
 Stack Constr. Co., 3303 S. 20th St., Milwaukee 15, Wis. (B-H-Hvy)
 Steigerwald, Ed., & Sons, Inc., 5310 W. State St., Milwaukee 8, Wis. (B-Hvy)
 Universal Constr., Inc., 2200 S. Austin St., Milwaukee 7, Wis. (B)
 Voss-Hrdlicka Co., 6144 W. Beloit Rd., Milwaukee 14, Wis. (B)
 Wolff, Arthur C., Inc., 3860 N. Bremen St., Milwaukee 12, Wis. (B)

(b) WISCONSIN CHAPTER

President—Orval J. Nelson, Peter Nelson & Son, Inc., 115 S. 4th St., La Crosse, Wis.

Vice President—Leslie G. Miller, Immel Constr. Co., 562 N. Main St., Fond du Lac, Wis.

Manager, Secretary-Treasurer—J. Harry Green, Jackman Bldg., Janesville, Wis.

Telephone: 6689

Abraham, Chas. W., Williams Bay, Wis. (B)
 Arnold, L. G., Inc., P. O. Box 228, Eau Claire, Wis. (B-H-Hvy-RR)
 Bahr Constr. Co., 1002 S. 26th St., Manitowish, Wis. (Hvy)
 Bondgard Constr. Co., 1424 9th St., Racine, Wis. (B-Hvy)
 Central Contr. Co., 1220 Algoma Blvd., Oshkosh, Wis. (Hvy)

48. WISCONSIN

(a) MILWAUKEE CHAPTER

President—Geo. H. Field, Dahlman Constr. Co., P. O. Box 1184, Milwaukee 1, Wis.

Manager—George A. Benish, 808 N. 3d St., 224-226 Century Bldg., Milwaukee 3, Wis.

Telephone: Broadway 1-7947

Bauer-Schoeneck Constr. Co., 3411 W. Hopkins St., Milwaukee 16, Wis. (B)
 Becker, Roland H., Inc., 7701 W. Bluemound Rd., Milwaukee 13, Wis. (B)
 Bentley Constr. Co., 125 E. National Ave., Milwaukee 4, Wis. (B-H-Hvy)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

WISCONSIN—Continued

Cullen, J. P., & Son, P. O. Box 72, Janesville, Wis. (B)
 Cunningham Bros., Inc., 359½ E. Grand Ave., Beloit, Wis. (B)
 Findorff, J. H., & Son, Inc., 601 W. Wilson St., Madison, Wis. (B)
 Fluor Bros. Constr. Co., 48 Otter St., Oshkosh, Wis. (B-Hvy)
 Ford Constr. Co., 911 S. Jackson St., Janesville, Wis. (B)
 Fritz Constr. Co., 138 N. Frances St., Madison, Wis. (B-Hvy)
 Ganther, Ben B., Co., 22-24 Washington Blvd., Oshkosh, Wis. (B)
 Green, Chas. A., & Son, Inc., P. O. Box 195, Appleton, Wis. (H-Hvy)
 Hamann Constr. Co., 408 Commercial St., Manitowoc, Wis. (B)
 Henry, Frank J., Inc., 1120 6th St., So., Wisconsin Rapids, Wis. (B)
 Hoepfner-Bartlett Co., 631 E. Madison St., Eau Claire, Wis. (B)
 Hutter Constr. Co., 134 Western Ave., Fond du Lac, Wis. (B)
 Immel Constr. Co., 562 N. Main St., Fond du Lac, Wis. (B)
 Johnson, Drake & Piper, Inc., P. O. Box 108, Platteville, Wis. (B-H-Hvy)
 Johnson & Henrickson, 422 Dodge St., Racine, Wis. (B)
 Jones, L. S., & Sons, Inc., 1013 Villa St., Racine, Wis. (B)
 Kennedy Constr. Co., 405 E. Grand Ave., Beloit, Wis. (B)
 Meyer, C. R., & Sons Co., 50 State St., Oshkosh, Wis. (B-Hvy)
 Meyer, Edw. H., Constr. Co., P. O. Box 705, Neenah, Wis. (B-Hvy)
 Molzahn, Theo. J., & Sons, Inc., Madison St. at 18th Pl., Box 599, La Crosse, Wis. (B)
 Nelson & Co., Inc., 1550 Yout St., Racine, Wis. (B)
 Nelson, Geo., & Son, Inc., 1117 W. Johnson St., Madison, Wis. (B)
 Nelson, Peter, & Son, Inc., 115 S. 4th St., La Crosse, Wis. (B)
 Olmstead, A. C., 1121 Pleasant St., Janesville, Wis. (B)
 Peterson Constr. Co., Eau Claire, Wis. (B)
 Piehl, Myron T., Williams Bay, Wis. (B)
 Precour Constr. Co., 1117 N. Bowen St., Oshkosh, Wis. (B)
 Schwalbe, F. R., & Son, 313 Rivoli Bldg., La Crosse, Wis. (B)
 Selmer Co., The, 128 N. Pearl St., Green Bay, Wis. (B)
 Severson-Schlitz, Inc., 1002 Beloit Ave., Janesville, Wis. (B)
 Smith, Chas. D., & Son, Inc., P. O. Box 508, Fond du Lac, Wis. (B-Hvy)
 Thiele Bros., Allen Grove, Wis. (B)
 Thomsen-Abbott Constr. Co., 211 S. Central Ave., Marshfield, Wis. (B)
 Vogel Bros. Bldg. Co., 1321 E. Mifflin St., Madison 3, Wis. (B)
 Wergin Co., The, 200 Wausau Ave., P. O. Box 936, Wausau, Wis. (B)
 Willis, T. S., Hayes Bldg., Janesville, Wis. (B)
 Zinzow Constr. Co., Inc., 27 N. Wisconsin St., Elkhorn, Wis. (B)

49. WYOMING

(a) ASSOCIATED GENERAL CONTRACTORS OF WYOMING

President—Chas. M. Smith, Box 508, Thermopolis, Wyo.
Secretary-Treasurer—Vern Knisely, Knisely-Moore Co., Box 77, Douglas, Wyo.
 Arkwright, Stanley H., Inc., 1200 6th Ave., No., P. O. Box 1211, Billings, Mont. (H-Hvy)
 Barling, W. E., Inc., Meeteetse, Wyo. (H)
 Big Horn Constr. Co., P. O. Box 875, Sheridan, Wyo. (H-Hvy-RR)
 Birch, S., & Sons Constr. Co., 314 Ford Bldg., Great Falls, Mont. (H)
 Black Hills Constrs., Inc., % Summit Constr. Co., P. O. Box 1609, Rapid City, S. Dak. (H-Hvy)
 Boatright-Smith, P. O. Box 703, Rawlins, Wyo. (H)
 Brown Constr. Co., 1530 E. Abriendo, Pueblo, Colo. (H)
 Carruth, Geo. M., & Son, Evanston, Wyo. (Hvy)
 Gilpatrick, M. J., Constr. Co., Riverton, Wyo. (H)
 Hesser, L. J., P. O. Box 806, Greeley, Colo. (H)
 Hopkins, D. W., 308 Park Ave., Wheatland, Wyo. (H)
 Horner, A. S., Constr. Co., 118 S. Pecos St., Denver 9, Colo. (H-Hvy)
 Inland Constr. Co., 414 Hynds Bldg., Box 197, Cheyenne, Wyo. (H-Hvy-RR)
 Jones-Hinckley & Jones, Inc., Box 856, Powell, Wyo. (H)
 Kiewit, Peter, Sons' Co., P. O. Box 875, Sheridan, Wyo. (H-Hvy)
 Knisely-Moore Co., Box 77, Douglas, Wyo. (H)
 Lichty Constr. Co., P. O. Box 1068, Riverton, Wyo. (H-Hvy)
 Monaghan, J. H. & N. M., & Assoc. Cos., Rt. 1, Derby, Colo. (H)
 Morrison-Knudsen Co., Inc., 319 Broadway, Boise, Idaho (H)
 Nelson, N. A., Constr. Co., P. O. Box 644, Sheridan, Wyo. (H)
 Northwestern Engr. Co., P. O. Box 567, Denver 1, Colo. (H)
 Peterson, Etlin E., 602 E. 15th St., Casper, Wyo. (H)
 Read, A. H., Co., 706 W. 19th St., Cheyenne, Wyo. (H-Hvy)
 Read Constr. Co., 706 W. 19th St., P. O. Box 357, Cheyenne, Wyo. (H-Hvy)
 Roscoe, W. P., Co., P. O. Box 633, Billings, Mont. (H)
 Sharrock & Pursel, Box 316, Casper, Wyo. (H)
 Smith, Chas. M., Box 508, Thermopolis, Wyo. (H)
 Summit Constr. Co., P. O. Box 1609, Rapid City, S. Dak. (H)
 Taggart Constr. Co., P. O. Box 560, Cody, Wyo. (H)
 Teton Constr. Co., P. O. Box 197, Cheyenne, Wyo. (H)
 Woodward Constr. Co., Box 1046, Rock Springs, Wyo. (H)

Wyoming Constr. Co., P. O. Box 3450, Laramie, Wyo. (H)
 Wyoming Improvement Co., Box 567, Denver, Colo. (H-Hvy)

(b) WYOMING CONTRACTORS' ASSOCIATION, INC.

President—N. A. Nelson, N. A. Nelson Constr. Co., 731 N. Main St., P. O. Box 644, Sheridan, Wyo.
Secretary—Alfred M. Pence, Box 772, Laramie, Wyo.
Telephone: Laramie 3626
 Deal Lumber Co., 1104 S. 2d St., Box 607, Laramie, Wyo. (B)
 Dougherty & Novotny Constr. Co., P. O. Box 1841, Casper, Wyo. (B)
 Dudley, Max W., P. O. Box 668, Riverton, Wyo. (B)
 Hancock-Carlson, Inc., Boyd Bldg., Cheyenne, Wyo. (B)
 Husman Bros., Inc., Big Horn Ave., Sheridan, Wyo. (B-Hvy)
 Jones, Jas. E., Jr., 943 E. 14th St., Casper, Wyo. (B)
 Liesinger, L. D., Constr. Co., Inc., 803 Kirk Ave., P. O. Box 872, Casper, Wyo. (B)
 Moore, Fred P., & Son, 1142 S. David, Casper, Wyo. (B)
 Moore, Paul, & Assocs., 628 W. Yellowstone, Box 561, Casper, Wyo. (B)
 Mountain States Bldrs., Inc., 426 S. Center, P. O. Box 1491, Casper, Wyo. (B)
 Nelson, A. N., 315 N. 7th St., P. O. Box 851, Riverton, Wyo. (B)
 Nelson, N. A., Constr. Co., 731 N. Main St., P. O. Box 644, Sheridan, Wyo. (B-H)
 Riedesel-Lowe Co., Box 914, Cheyenne, Wyo. (B)
 Rognstad-Olsen Constr. Co., 1233 E. "C" St., P. O. Box 266, Casper, Wyo. (B)
 Simmons Constr. Co., 2409 E. 15th St., Cheyenne, Wyo. (B)
 Spiegelberg Lumber & Bldg. Co., 259 W. Fremont St., P. O. Box 628, Laramie, Wyo. (B)
 Steele, J. P., Constr. Co., 617 Grand Ave., Laramie, Wyo. (B)
 Wade, D. B., 824 S. Washington St., Casper, Wyo. (B)
 Welch, Louis B., Constr. Co., Cowley, Wyo. (B)
50. ALASKA
(a) ALASKA CHAPTER
President—D. L. Cheney, S. Birch & Sons Constr. Co., 208 Central Bldg., Seattle 4, Wash.
Manager—L. A. Moore, P. O. Box 992, Anchorage, Alaska
Telephone: 2-0471
 Anderson-Benson-Montin, Central Bldg., Seattle 3, Wash. (B)
 Bachner, John G., Box 1521, Anchorage, Alaska (B)
 Badraun, J. J., Box 446, Valdez, Alaska (H-Hvy)

A.G.C. DIRECTORY

ALASKA—Continued

- Baldwin, L. E., Inc., 1103 N. 36th, Seattle 3, Wash. (B-H)
 Berg, Chris, Inc., & Assocs., Box 1402, Fairbanks, Alaska (B)
 Berg Constr. Co., Inc., Box 276, Juneau, Alaska (B-H)
 Birch, S., & Sons Constr. Co., 208 Central Bldg., Seattle 4, Wash. (B-H-Hvy)
 Boen-Sealand Constrs., 3647 Stone Way, Seattle 3, Wash. (B-Hvy)
 Boespflug, J. C., Constr. Co., 1912 4th Ave., So., Seattle 4, Wash. (B-Hvy)
 Brezina Construction Company, Inc., Box 2031, Anchorage, Alaska (B)
 Butler Constr. & Engr. Co., Box 215, Anchorage, Alaska (H-Hvy-RR)
 Canoro Constr. Co., Box 1363, Fairbanks, Alaska (B)
 Carson Constr. Co., Inc., Pouch 12, Anchorage, Alaska (B)
 Coker Constr. Co., Pouch #10, Anchorage, Alaska (H-Hvy-RR)
 Date, H. G., Box 258, Cordova, Alaska (B-Hvy)
 Drake, Puget Sound, Alaska Div., N. O. B. Kodiak, Alaska (B-H-Hvy-RR)
 Foss, C. R., Inc., Box 112, Anchorage, Alaska (B)
 Fulton, I. G., Box 835, Anchorage, Alaska (B)
 Gerwick, Ben C., Inc., Box 499, Anchorage, Alaska (Hvy)
 Grove Shepherd Wilson & Kruge, Inc., Box 1803, Anchorage, Alaska (B-Hvy)
 Haddock Engrs., Ltd. & Assocs., Pouch 3, Anchorage, Alaska (B-Hvy)
 Hopper Co., 539 E. 5th Ave., P. O. Box 1551, Anchorage, Alaska (B)
 Hufeisen, C. Wm., Box 1194, Anchorage, Alaska (B)
 Johnson Constr. & Maintenance Co., 834 4th Ave., Anchorage, Alaska (B)
 Johnson-Crooks, Box 484, Anchorage, Alaska (B)
 Keil & Peterman Co., Box 676, Ketchikan, Alaska (B-Hvy)
 Kiewit, Peter, Sons' Co., 1300 Aloha, Seattle, Wash. (B-Hvy)
 Kuney, Max J., Co., 235 9th, No., Seattle, Wash. (Hvy)
 Lane, E. V., Corp., 2675 3d St., P. O. Box 417, Palo Alto, Calif. (B-Hvy)
 Lytle, C. F., Co. & Green Constr. Co., 312 Masonic Temple Bldg., Des Moines, Iowa (B-H-Hvy-RR)
 Manson-Osberg Co., 1132 N. 128th St., Seattle 33, Wash. (H-Hvy-RR)
 McLaughlin, Inc., Box 225, Valdez, Alaska (H-Hvy-RR)
 Morrison-Knudsen Co., Inc., 603 Hoge Bldg., Seattle, Wash. (B-H-Hvy-RR)
 Mortensen Constr. Co., 1021 Westlake, No., Seattle 9, Wash. (B)
 Munter, M. P., Co., 1428 Joseph Vance Bldg., Seattle 1, Wash. (H)
 Patti-MacDonald Constr. Co., Pouch 6, Anchorage, Alaska (B-Hvy)
 Pomeroy, J. H., & Co., Inc., 333 Montgomery St., San Francisco 4, Calif. (B-Hvy)
 Reed & Martin, Inc., Box 451, Fairbanks, Alaska (B)
 Robinson, Howard, Co., 804 O St., Anchorage, Alaska (H-Hvy)
 Rogers Constr. Co., & Babler Bros., 11760 N. E. Glisan St., Portland 16, Oreg. (H-Hvy)
 Rue Contr. Co., Palmer, Alaska (B)
 Rushlight-Macri, Box 938, Anchorage, Alaska (B)
 Shaw, N. F., Inc., P. O. Box 2132, Anchorage, Alaska (B)
 Stock & Grove, Inc., Box 2051, Anchorage, Alaska (Hvy)
 Swalling Constr. Co., Inc., Box 1039, Anchorage, Alaska (B-Hvy)
 Valle-Sommers Constr Co., Box 4096, Interbay Sta., 407 3d Ave., W., Seattle 99, Wash. (B)
 Ward Cove Bldrs., Ketchikan, Alaska (B)
 Warrack, J. B., Co., Box 1957, Anchorage, Alaska (B)
 Yett & Conley, 6500 N. E. Ainsworth St., Portland 13, Oreg. (H)

51. HAWAII

Local Member

- Pacific Construction Co., Ltd., 1192 Waimanu St., Honolulu 42, T. H. (B-Hvy)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

National Members

- Atkinson, Guy F., Co., 10 W. Orange Ave., P. O. Box 593, South San Francisco, Calif.;
5315 N. E. 101st Ave., P. O. Box 7528, Portland 20, Oreg.;
P. O. Box 259, Long Beach 1, Calif.;
519 Symes Bldg., Denver 2, Colo.;
342 Skinner Bldg., Seattle 1, Wash. (B-H-Hvy-RR)
- Bates & Rogers Construction Corporation, 600 W. Jackson Blvd., Chicago 6, Ill.;
Rm. 1122, 209 Post St., San Francisco, Calif. (B-Hvy-RR)
- Condon-Cunningham Co., 4229 Lafayette Ave., Omaha 3, Nebr. (H-Hvy)
- Cowper, John W., Co., Inc., The, 405 Sidway Bldg., Buffalo 3, N. Y. (B)
- Cranford, Frederick L., Inc., Crescent Bldg., 129 Pierrepont St., Brooklyn 2, N. Y. (Hvy)
- Dravo Corporation, The Contracting Division, Neville Island, Pittsburgh 25, Pa. (Hvy-RR)
- Foley Brothers, Inc., Westchester Lighting Co. Bldg., Vermilyea St., Pleasantville, N. Y. (Hvy-RR)
- Forcum-James Co., Dyersburg, Tenn. (B-H-Hvy)
- Ford, Bacon & Davis Construction Corp., 805 S. Grand St., Monroe, La.;
39 Broadway, New York, N. Y. (B-Hvy)
- Fuller, George A., Company, Fuller Bldg., 597 Madison Ave., New York 22, N. Y.;
3100 W. 8th St., Los Angeles 5, Calif.;
P. O. Box 146, North End Sta., Detroit 2, Mich.;
111 W. Washington St., Chicago 2, Ill.;
11 Beacon St., Boston 8, Mass.;
1138 Munsey Bldg., Washington 4, D. C.;
511 Wood St., Pittsburgh 22, Pa. (B)
- General Construction Company, P. O. Box 3244, Seattle 14, Wash.;
4850 N. W. Front Ave., P. O. Box 3860, Portland 8, Oreg. (B-H-Hvy-RR)
- Harrison Construction Company, 1101 Western Ave., Pittsburgh 33, Pa.;
Maryville, Tenn. (B-H-Hvy)
- Hydrocarbon Research, Inc., 115 Broadway, New York 6, N. Y. (B-Hvy)
- Johnson, Al Construction Co., 608 Foshay Tower, Minneapolis 2, Minn. (H-Hvy)
- Johnson, W. L., Construction Co. and Associates, 209 E. High St., Hicksville, Ohio;
Box 218, Bexley Sta., Columbus 9, Ohio (H-Hvy)
- Kansas City Bridge Company, 928 Broadway, Kansas City 5, Mo.;
Rm. 205, Pioneer Bldg., Lake Charles, La.;
Shipyards, Plaquemine, La. (Hvy-RR)
- Koss Construction Company, 205 Farm Bureau Bldg., Des Moines 9, Iowa (H-Hvy-RR)
- List & Clark Construction Company, 729 Railway Exchange Bldg., Kansas City 6, Mo. (H-Hvy-RR)
- Long Construction Company (John C. Long-Robert W. Long-Marshall Long), 810 Rialto Bldg., Kansas City 6, Mo. (B-Hvy)
- Manhattan Construction Co., Manhattan Bldg., Muskogee, Okla.;
P. O. Box 1686, Tulsa, Okla.;
1804 Classen Blvd., Oklahoma City 6, Okla.;
P. O. Box 826, Fort Smith, Ark.;
2828 Pease St., Houston 3, Texas (B-Hvy)
- Maxon Construction Company, Inc., 131 N. Ludlow St., Dayton 2, Ohio (B-Hvy)
- McDevitt & Street Company, 505 Builders Bldg., Box 1847, Charlotte 1, N. C. (B-Hvy)
- McLean Contracting Company, 1301-3 Fidelity Bldg., Baltimore 1, Md. (H-Hvy-RR)
- McWilliams Dredging Company, 903 S. Jefferson Davis Pkwy., P. O. Box 584, New Orleans 7, La. (Hvy)
- Merritt-Chapman & Scott Corp., 260 Madison Ave., New York 16, N. Y.;
Pasadena, Texas;
Washington, D. C.;
New London, Conn.;
Cleveland, Ohio (B-Hvy)
- Morrison-Knudsen Co., Inc., 319 Broadway, Box 450, Boise, Idaho;
411 W. 5th St., Los Angeles 13, Calif.;
603 Hoge Bldg., Seattle 4, Wash.;
74 New Montgomery St., San Francisco 5, Calif.;
2800 Chanin Bldg., 122 E. 42d St., New York 17, N. Y. (B-H-Hvy-RR)
- Muirhead, Wm., Construction Company, Inc., P. O. Box 2012, E. Trinity Ave., Durham, N. C. (B-H-Hvy)
- Oman Construction Company, P. O. Box 146, Nashville 2, Tenn. (B-H-Hvy-RR)
- Prepakt Concrete Company, The, Union Commerce Bldg., Cleveland 14, Ohio;
208 Columbia St., Seattle, Wash.;
503 Market St., San Francisco 5, Calif.;
80 E. Jackson Blvd., Chicago 4, Ill.;
527 Western Savings Fund Bldg., Philadelphia, Pa.;
479 Statler Office Bldg., Boston 16, Mass.;
308 C. A. Johnson Bldg., Denver, Colo.;
1703 Atlanta Federal Savings Bldg., Atlanta, Ga. (Hvy)
- Raymond Concrete Pile Co., 140 Cedar St., New York 6, N. Y.;
421 S. W. 6th Ave., Portland 4, Oreg.;
816 W. 5th St., Los Angeles 17, Calif.;
304 Fourth Ave., Pittsburgh 22, Pa.;
1625 Eye St., N. W., Washington 6, D. C.;
57 Forsyth St., N. W., Atlanta 3, Ga.;
711 Mercantile Trust Bldg., Baltimore 2, Md.;
- 31 St. James Ave., Boston 16, Mass.;
111 W. Monroe St., Chicago 3, Ill.;
7430 2d Ave., Detroit 2, Mich.;
1500 Walnut St., Philadelphia 2, Pa.;
333 Montgomery St., San Francisco 4, Calif.;
837 Common St., New Orleans 12, La.;
127 W. 10th St., Kansas City 5, Mo.;
156 Jones Ave., Oakland 3, Calif.;
1013 S. State St., Syracuse 3, N. Y.;
610 Woodrow St., Houston 6, Texas;
706 Chestnut St., St. Louis 1, Mo.;
365 N. E. 55th St., Miami 37, Fla.;
925 Euclid Ave., Cleveland 14, Ohio;
203 Interurban Depot Bldg., Salt Lake City 1, Utah;
3640 E. Marginal Way, Seattle 4, Wash. (H-Hvy-RR)
- Rust Engineering Co., The, Rust Bldg., 575 Sixth Ave., Pittsburgh 19, Pa.;
902 Denrike Bldg., 1010 Vermont Ave., N. W., Washington 5, D. C.;
519 Lincoln Bldg., 60 E. 42d St., New York 17, N. Y.;
Exchange Bldg., 2109 5th Ave., No., Birmingham 3, Ala. (B-Hvy)
- Starrett Brothers and Eken, Incorporated, 63 Wall St., New York 5, N. Y. (B)
- Stewart, James, & Co., Inc., 230 Park Ave., New York 17, N. Y.;
228 N. LaSalle St., Chicago 1, Ill.;
6308 Willston Dr., Falls Church, Va.;
306 Employers Insurance Bldg., Dallas 2, Texas (B)
- Stone & Webster Engineering Corp., 90 Broad St., New York, N. Y.;
49 Federal St., Boston, Mass.;
33 S. Clark St., Chicago, Ill.;
557 Union Trust Bldg., Pittsburgh, Pa.;
235 Montgomery St., San Francisco, Calif.;
601 W. 5th St., Los Angeles, Calif.;
Esperson Bldg., Houston, Texas (B-Hvy)
- Teichert, A., & Son, Inc., 1931 Stockton Blvd., P. O. Box 928, Sacramento 4, Calif. (H-Hvy-RR)
- Terteling, J. A., & Sons, Inc., P. O. Box 1428, Boise, Idaho (B-H-Hvy-RR)
- Tidewater Construction Corporation, P. O. Box 57, Norfolk 1, Va. (B-H-Hvy-RR)
- Tompkins, Chas. H., Co., 907 16th St., N. W., Washington 6, D. C. (B-Hvy)
- Tuller Construction Company, The, 95 Monmouth St., Red Bank, N. J. (B-H-Hvy-RR)
- Turner Construction Co., 420 Lexington Ave., New York 17, N. Y.;
1500 Walnut St., Philadelphia 2, Pa.;
38 Newbury St., Boston 16, Mass.;
105 W. Adams St., Chicago 3, Ill. (B)
- United Construction Co., 64 W. 5th St., Winona, Minn. (H-Hvy)
- United Engineers & Constructors Inc., 1401 Arch St., Philadelphia 5, Pa. (B-Hvy-RR)

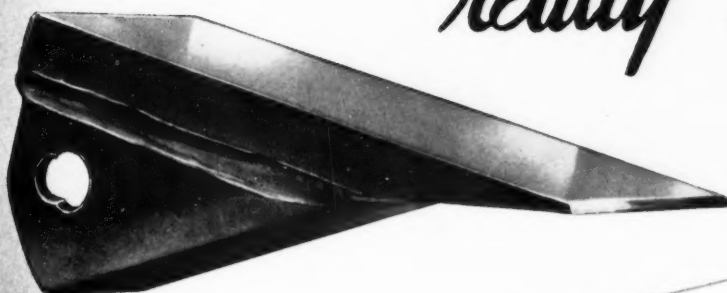
A.G.C. DIRECTORY

NATIONAL MEMBERS—Continued

- Utah Construction Co., 1 Montgomery St., San Francisco 4, Calif.;
142 E. 3d, South, Salt Lake City 10, Utah (B-H-Hvy-RR)
- Virginia Engineering Co., Inc., 80 29th St., Newport News, Va. (B-H-Hvy-RR)
- Walsh Construction Company—
Davenport, Iowa
General office:
122 E. 42d St., New York 17, N. Y.
District office:
785 Market St., San Francisco 3, Calif. (B-Hvy-RR)
- Webb, Del E., Constr. Co., P. O. Box 4066, Phoenix, Ariz.;
5101 San Fernando Rd., W., Los Angeles 39, Calif. (B-Hvy)
- Western Contracting Corporation, 400 Benson Bldg., Sioux City 15, Iowa;
1720 Euclid Ave., Room 201, Cleveland, Ohio;
4802 E. 12th St., Kansas City, Mo. (H-Hvy-RR)
- Wigton-Abbott Corporation, 1225 South Ave., Plainfield, N. J. (B)
- Winkelman, D. W., Co. Inc., 205 Harrison St., Syracuse 2, N. Y. (H)
- Winston Bros. Company, 1470 Northwestern Bank Bldg., Minneapolis 2, Minn.;
1532 S. California Ave., Monrovia, Calif. (B-H-Hvy-RR)
- Wunderlich Contracting Company, 206 Patterson Bldg., Omaha 2, Nebr. (H-Hvy)
- Zachry, H. B., Co., Construction Division, P. O. Box 2570, San Antonio, Texas (B-H-Hvy-RR)

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Handle loads safely and economically with a Clyde W-3 WHIRLETTE

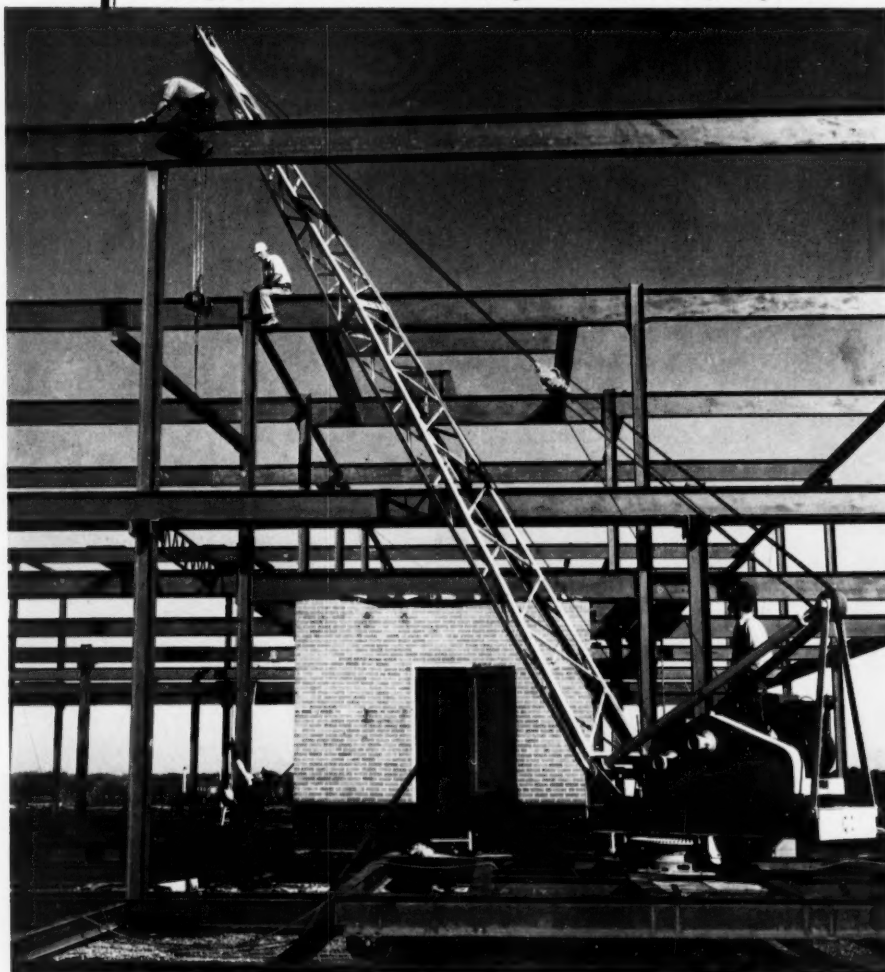
SPECIFICATIONS

Hook Work Only — Not For Clam Shell

| CAPACITY AT | 10' Radius | 15' Radius | 20' Radius | 25' Radius | 35' Radius | 40' Radius |
|-------------|---------------------------------|------------|------------|------------|------------|------------|
| | 10,000 lbs. (Special Tackle) | 6500 lbs. | 4500 lbs. | 3500 lbs. | 2500 lbs. | 2000 lbs. |

HOIST LINE SPEEDS— 50 f.p.m. to 160 f.p.m. Hoist line pull 3000 pounds. BOOM LENGTHS, 20 feet, 30 feet, or 40 feet. LOAD TACKLE, 3 parts for capacities to 8,000 pounds. HANGER TACKLE, 7 part. Roller path, 36 inch diameter. TAIL SWING, 5 feet 6 inches with 2-drum hoist and swinger. Required counterweight, 1,250 pounds steel punchings.

The complete unit includes turntable, center pin and rollers, rotating platform with counterweight box, A-frame and back-legs, power unit with or without swinger tackle blocks and operating cables.



**FULL REVOLVING
STEEL DERRICK**

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ONE FOUNDATION

•
**NO GUY WIRES
OR STIFF LEGS**

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**OCCUPIES LITTLE
GROUND SPACE**

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**OPERATOR ALWAYS
FACES LOAD**

•
**GASOLINE OR
ELECTRIC POWER**

•
**MANUAL OR
POWER SWING**

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**PORTABLE OR
STATIONARY
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1899

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